

HP **DesignJet 1000 Series** **Take-Up Reel**



User's Guide

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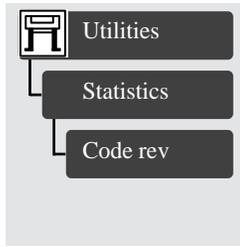
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Upgrading your Printer

Before installing your take-up reel, you should check that the firmware module installed in your printer supports a take-up reel.

Checking the Firmware Revision Number



You can find out your firmware revision number from the printer's front panel by selecting the Printer Setup menu and then “Utilities”, “Statistics”, and “Code rev”.

- If your firmware revision number is A.01.05 or higher, your take-up reel is supported and you can proceed with installation.
- If your firmware revision number is A.01.04 or A.01.04A, you need to contact an HP Customer Care Centre, which will send you a **free** Firmware Upgrade Kit. The telephone numbers of HP Customer Care Centres in each country are listed in the Customer Care booklet provided with your take-up reel.

Installing a New Firmware Module

This section explains how to install a new firmware module. If you do not need to install a new firmware module (see the previous page), you can skip this section.

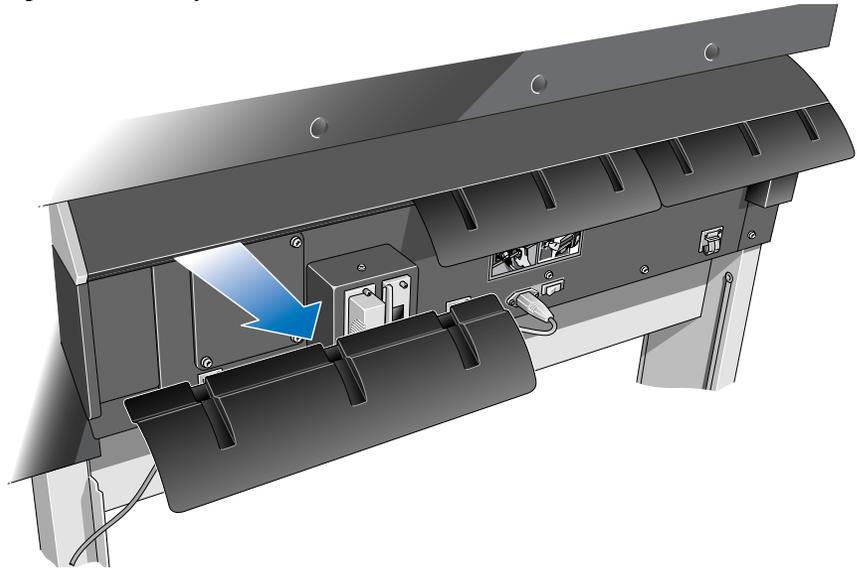
CAUTION

The firmware module contains electrical components that are easily damaged by small amounts of static electricity. Please read the following advice carefully before you handle the firmware module:

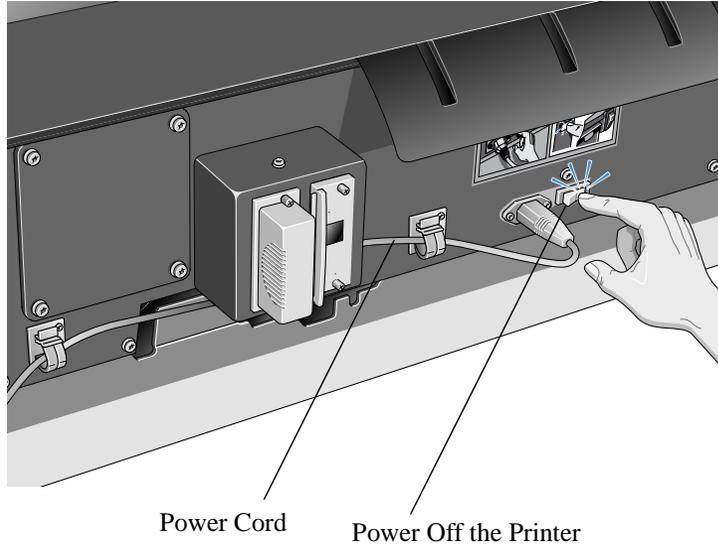
- Leave the firmware module in the antistatic bag until you are ready to install it.
- If possible, use an antistatic wrist strap and a grounding mat.
- Before you remove the firmware module from the antistatic bag, touch a grounded, unpainted metal surface to discharge static electricity.

Now you are ready to begin the installation.

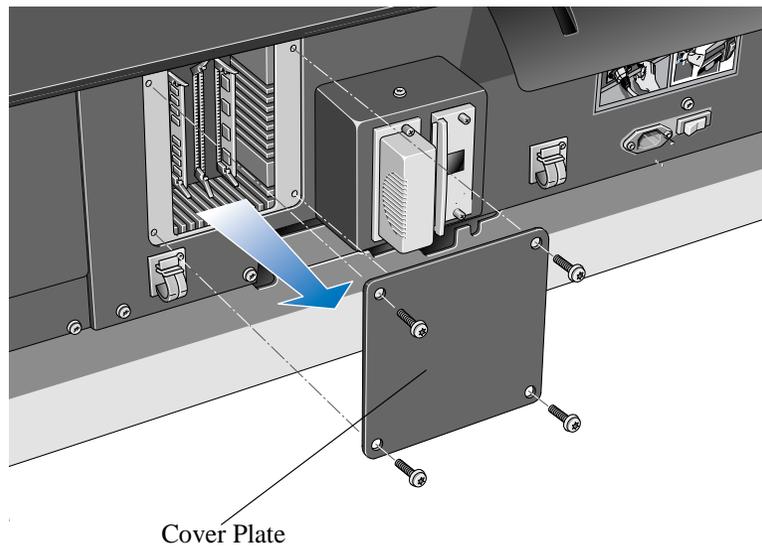
- 1 If the printer is turned on, turn it off at the front panel.
- 2 Looking at the rear of the printer, remove the paper path deflector from the left rear side of the printer. To do this, push the two slots in the deflector downwards and then pull it towards you.



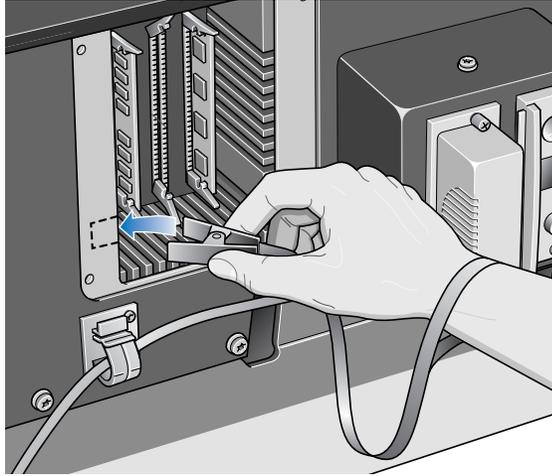
- 3 Switch the printer off at the power isolator switch at the back of the printer and disconnect the power cord and the interface cable.



- 4 Unscrew the four screws and remove the cover plate at the back of the printer. To prevent loss of these screws, loosely re-install them in the printer.

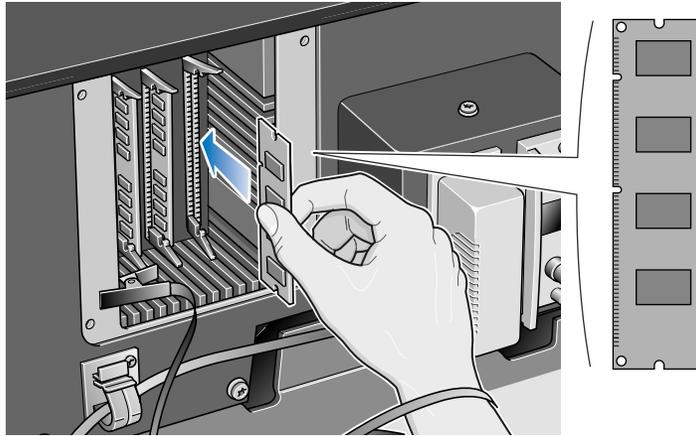


- 5 Looking at the back of the printer, you will see three slots. It is important to install the firmware module in the slot that is furthest to the right.
- 6 Put on a grounding wrist strap and attach the other end to the metal chassis of the printer.

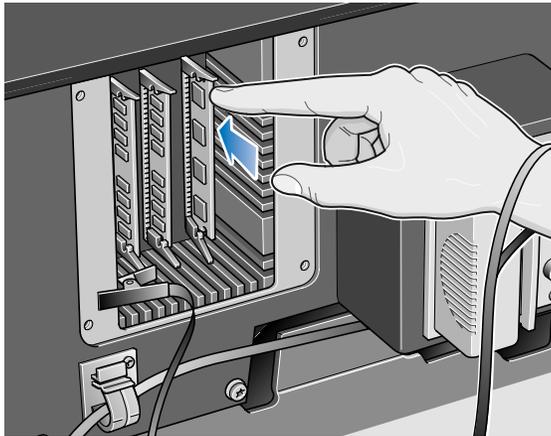


- 7 Remove the module that is currently occupying the rightmost slot. First push down the lower locking tab to release the module, then pull out the module, holding it by its edges.
- 8 Take the firmware module out of its bag. Hold the firmware module by its edges with the non-metallic edges toward you.

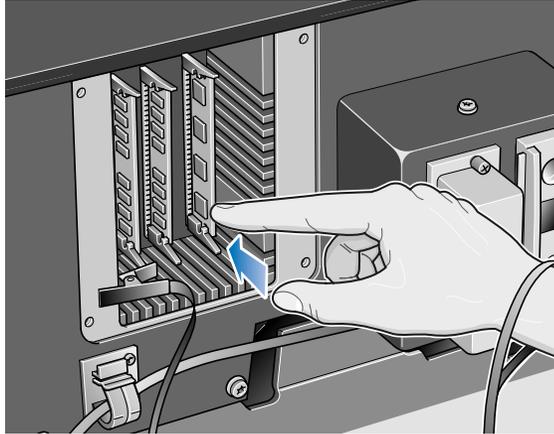
- 9 Carefully push the top edge of the firmware module into the slot.



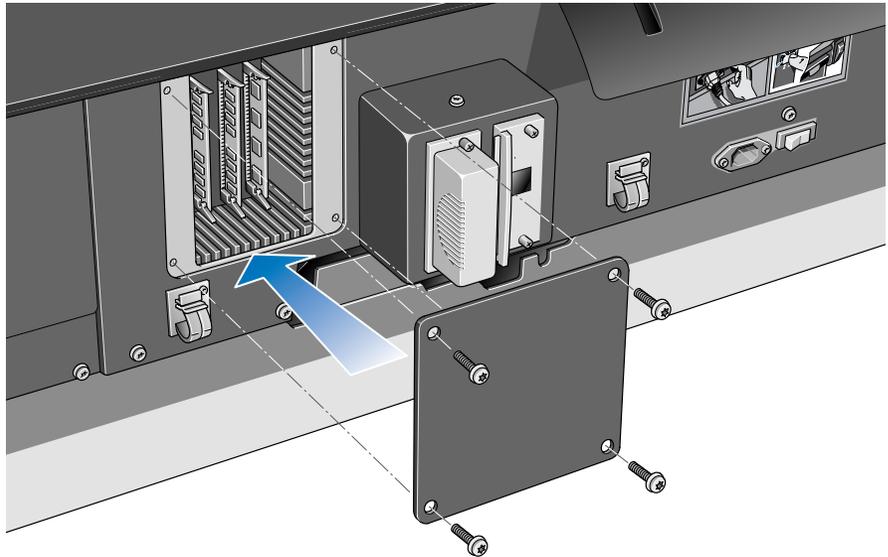
- 10 Continue pushing the top edge of the firmware module until you feel it “click” into position. At the same time you will see that the top locking tab locks into position.



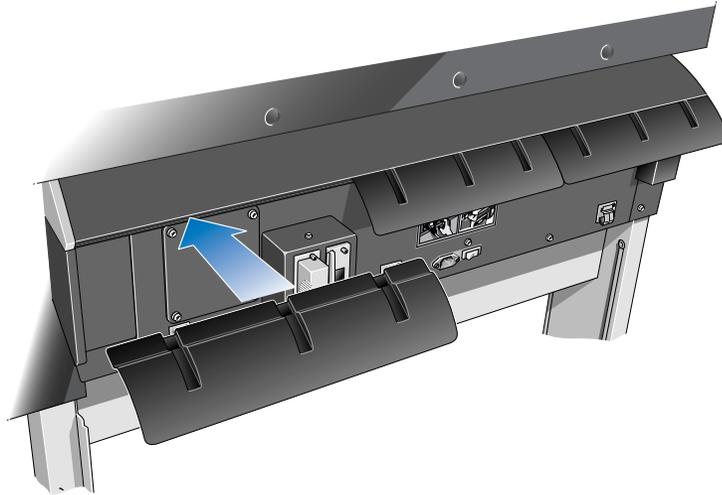
- 11 Carefully push the bottom edge of the firmware module into the slot until you feel it “click” into position. Again, you will see that the bottom locking tab locks into position.



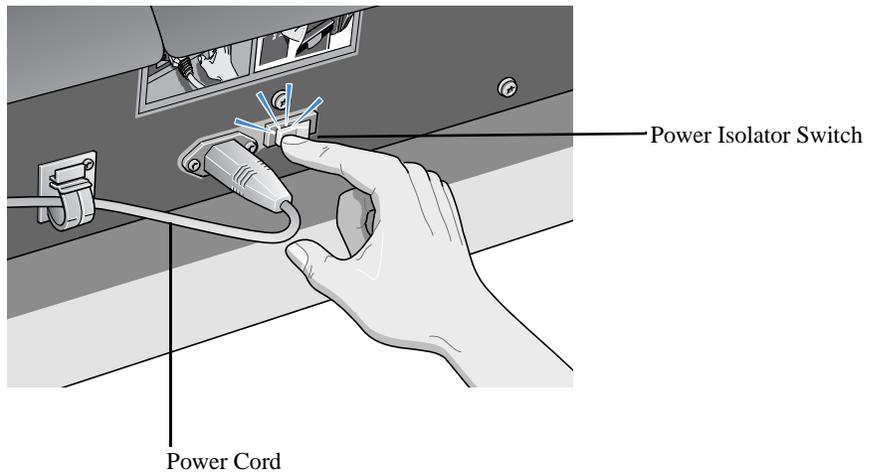
- 12 Remove the grounding wrist strap and then re-install the cover plate on the back of the printer, using the four screws.



- 13** Re-install the paper path deflector on the left side of the printer.



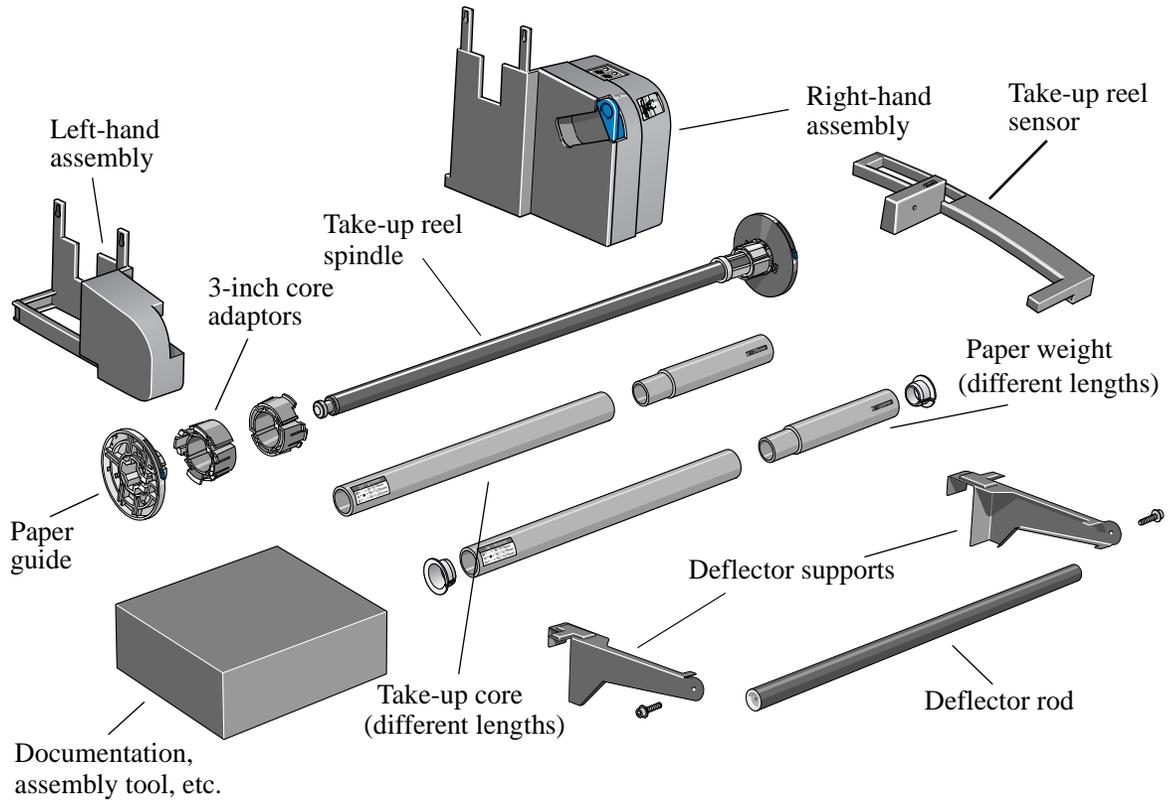
- 14** Reconnect the power cord and the interface cable and switch on the power isolator switch at the back of the printer.



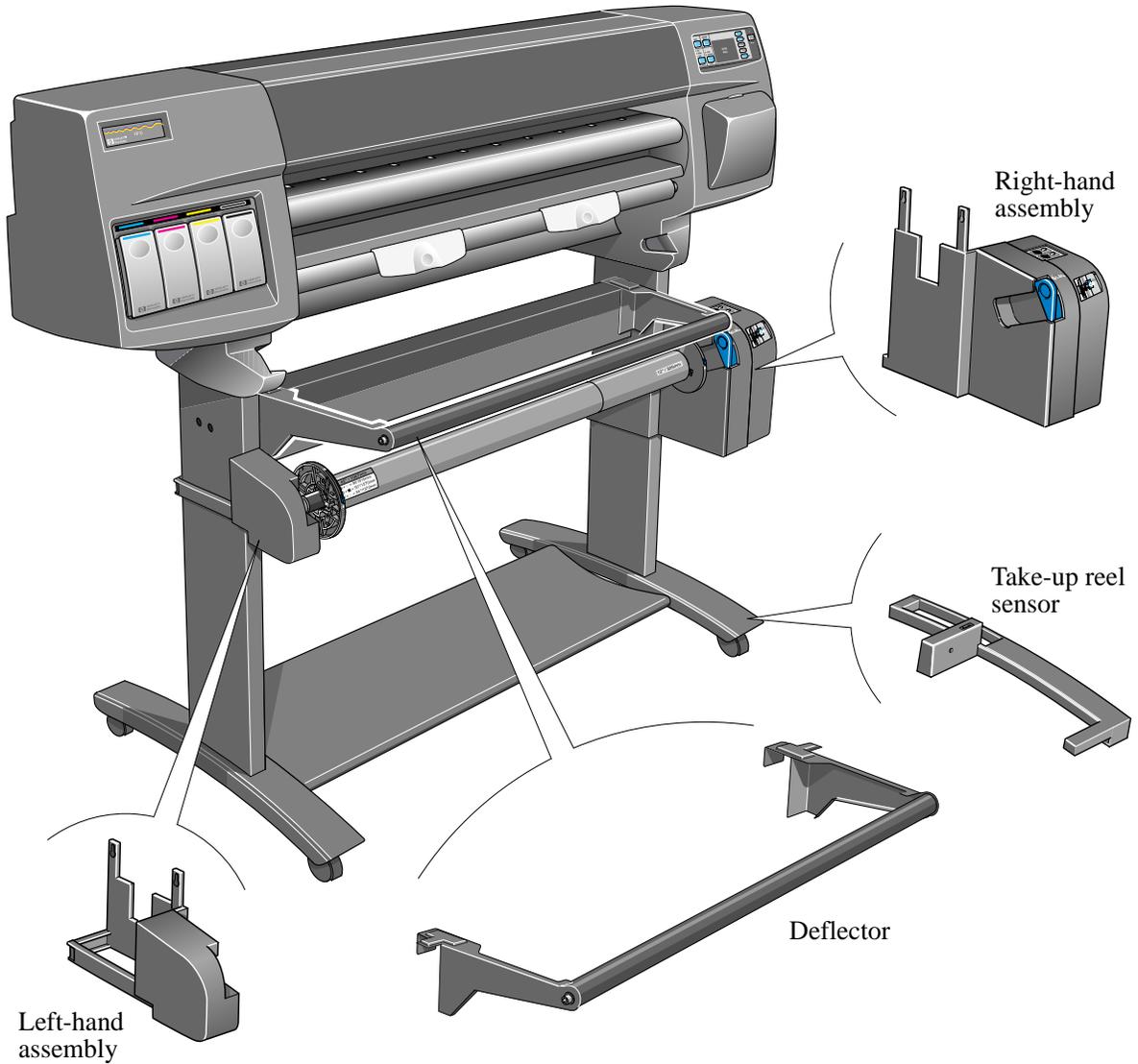
You have now finished installing the firmware module.

Take-Up Reel Components

These are the main components of the take-up reel.



The following picture shows the main components of the take-up reel and where they are installed on the printer,



Installing the Take-Up Reel



1. Using the front panel, select the Printer Setup menu, then “Device Setup”, then “TUR installed”, and change the value of this option from **No** to **Yes**.

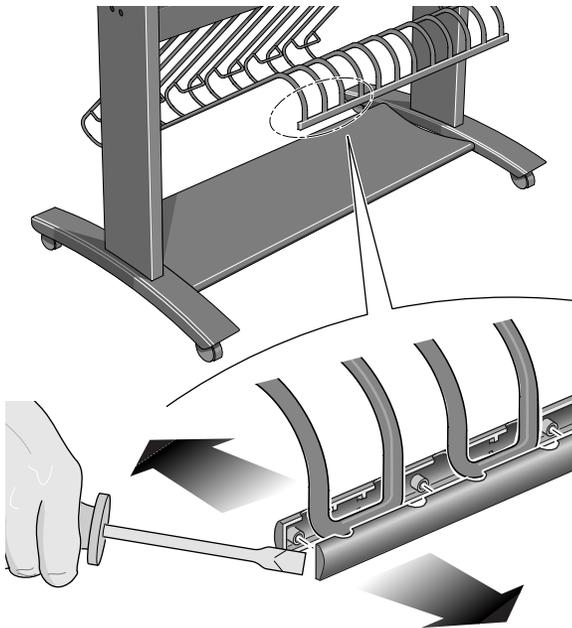
If you do not find any “TUR installed” option, you may need to upgrade your printer’s firmware (see *Upgrading your Printer*, on page 4).

2. If a roll of paper is loaded, remove it (see Chapter 3 of the *User’s Guide*).

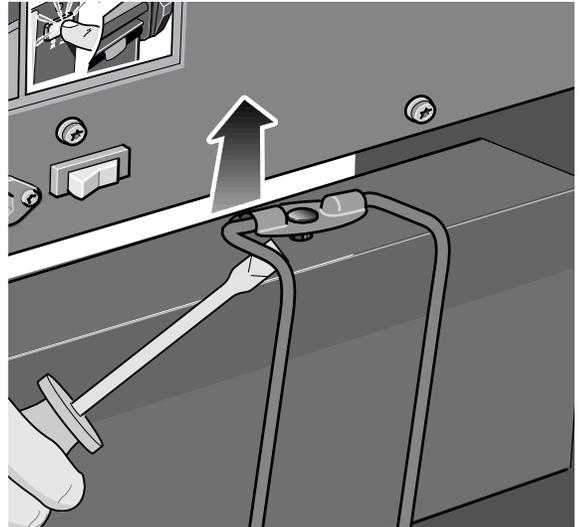
3. If the bin cover is in use, remove it.

4. Remove the bin assembly with a flat-blade screwdriver.

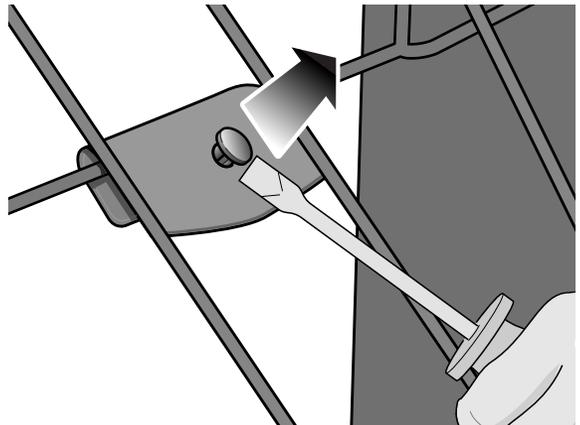
5. Carefully lever apart the capping strip assembly through the holes at the bottom.



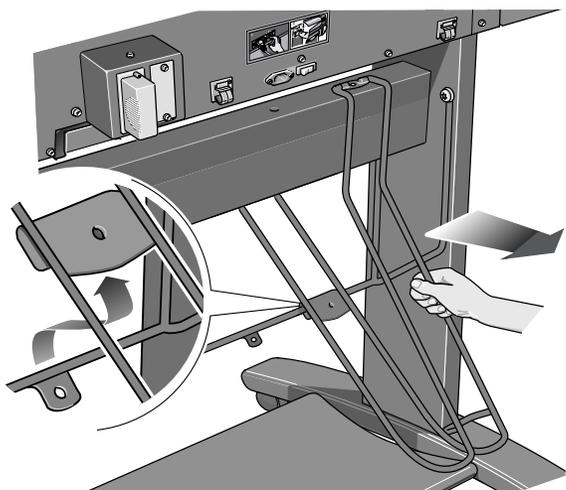
6. Carefully lever the six retaining clips from the paper-bin support.



7. Carefully lever the six retaining clips from the cross-brace assembly.

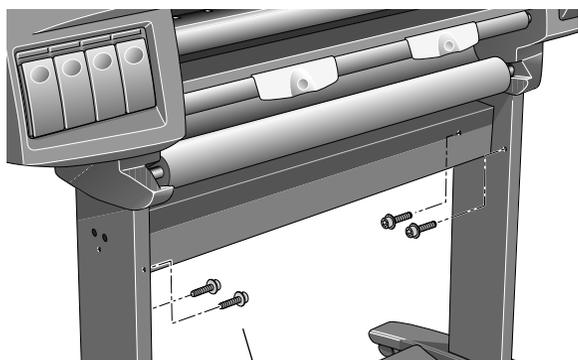


8. Remove the six paper-bin arms.



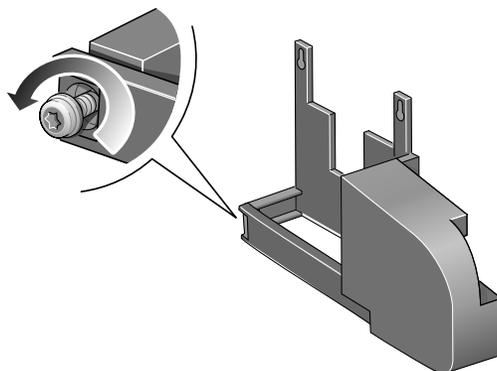
9. Remove the bin support from the legs assembly by removing four screws. **Do not use these (shorter) screws for the next step.**

10. Install the four (longer) screws from the take-up reel kit loosely into the legs as shown below. Do not tighten them yet.

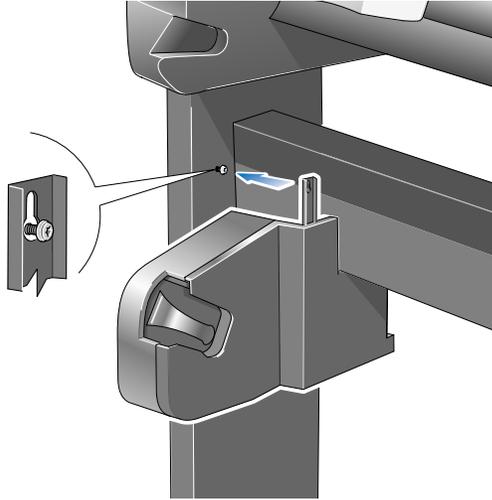


Install 4
screws

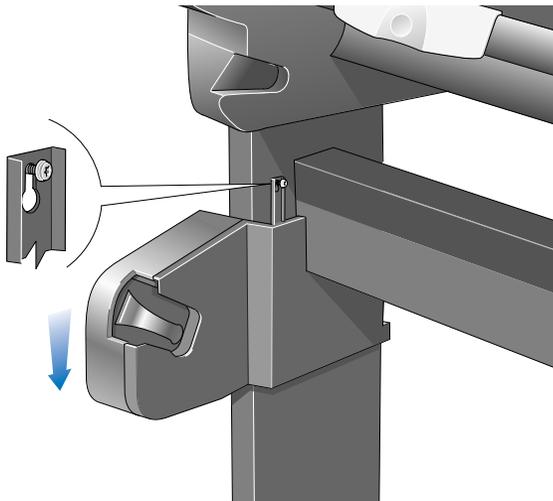
11. Release the clamp on the left-hand assembly by loosening the screw shown below. Do not remove the screw.



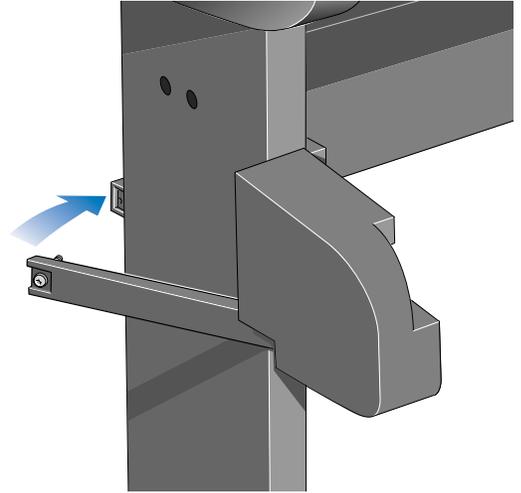
12. Open the clamp and fit the left-hand assembly on to the screws installed in step 10.



13. Pull the left-hand assembly down so that it rests securely on the screws.

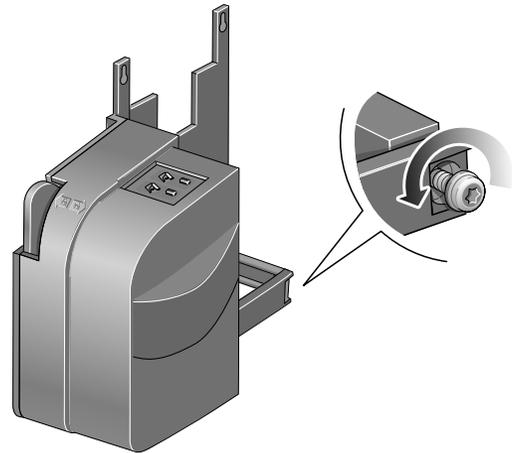


14. Close the clamp and secure with the clamp screw as shown below.

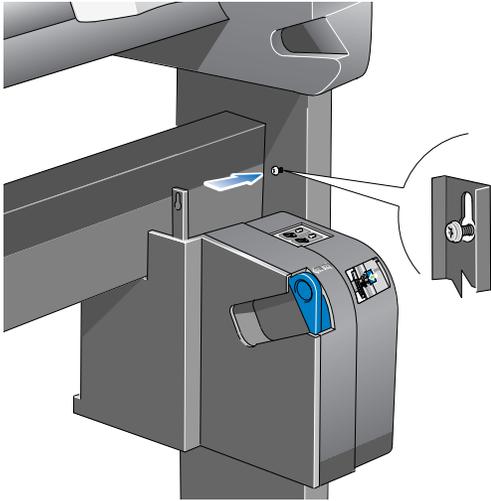


15. Tighten the two screws supporting the assembly.

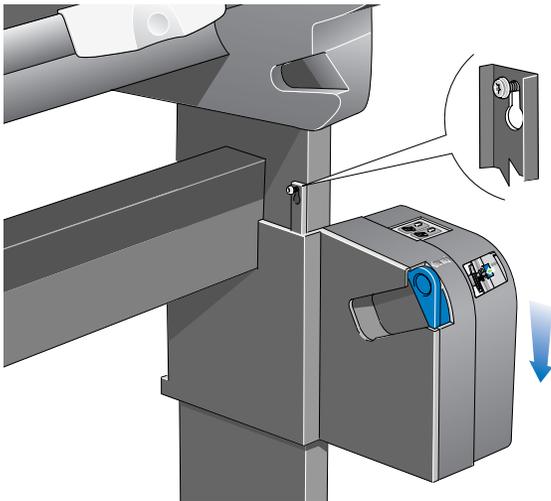
16. Release the clamp on the right-hand assembly by loosening the screw shown below. Do not remove the screw.



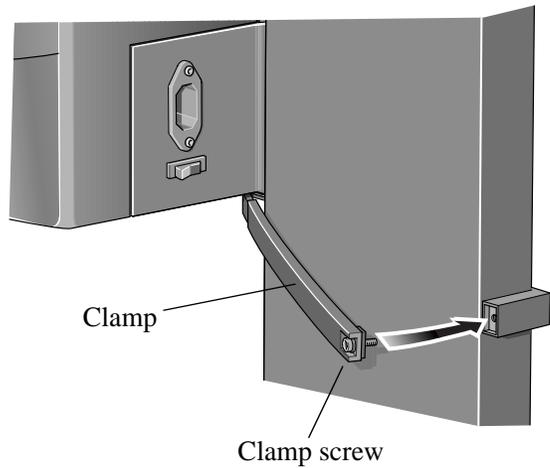
17. Open the clamp and fit the right-hand assembly on to the screws installed in step 10.



18. Pull the right-hand assembly down so that it rests securely on the screws.

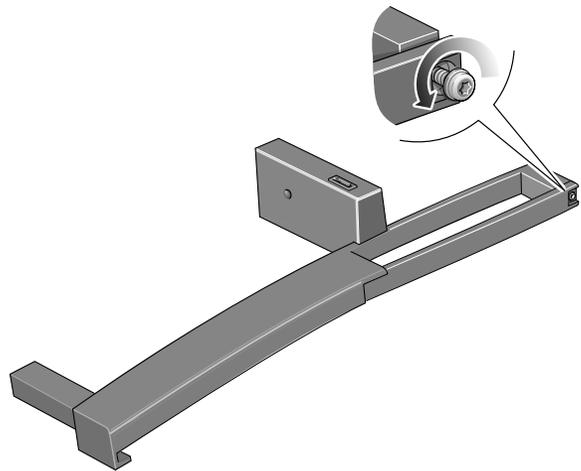


19. Close the clamp and secure with the clamp screw as shown below.

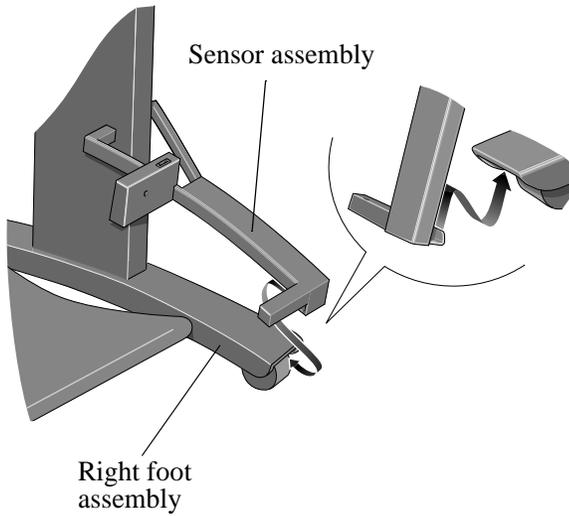


20. Tighten the two screws supporting the assembly.

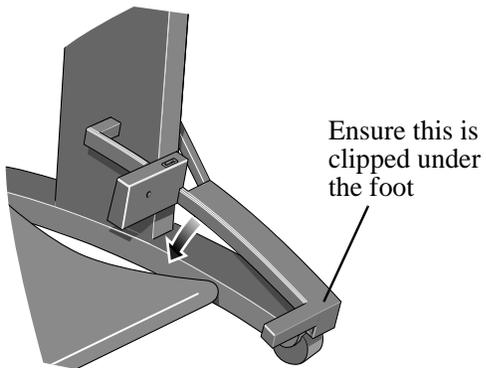
21. Unscrew the screw on the sensor assembly shown below (but do not remove it) and open the clamp.



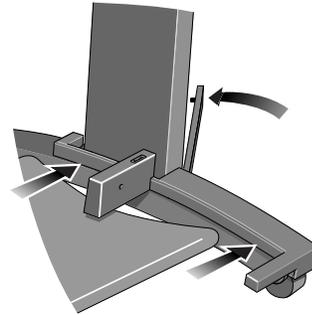
22. Install the front of the sensor assembly onto the front of the **right** foot assembly as shown below



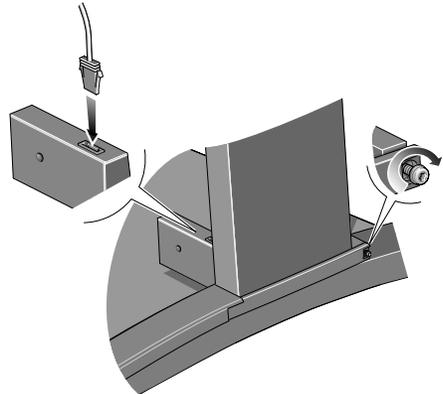
23. Lower the sensor into the position shown below.



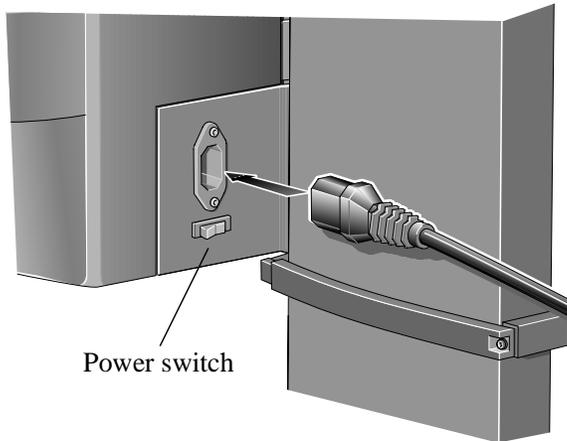
24. Slide the sensor assembly hard up against the leg and then close the sensor clamp as shown below.



25. Tighten the screw to secure the clamp in place and connect the sensor cable as shown below.

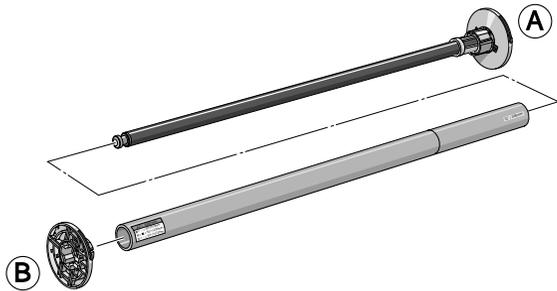


26. Connect the power cord into the rear of the take-up reel.

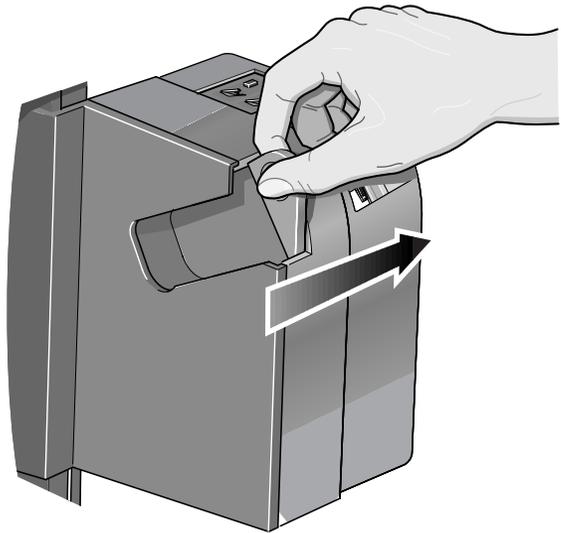


27. Use the blue lever to unlock the left-hand paper guide on the take-up reel spindle. Remove the paper guide.

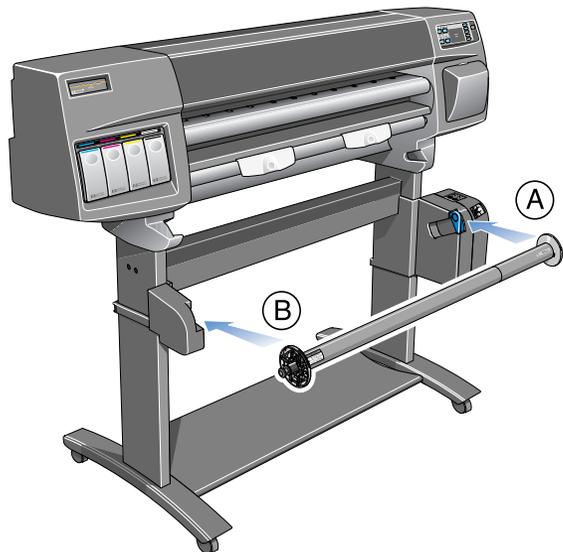
28. Assemble the take-up reel core and put it on to the spindle as shown below. Then put the paper guide back on to the spindle and lock it with the blue lever..



29. Ensure the spindle lock is open.

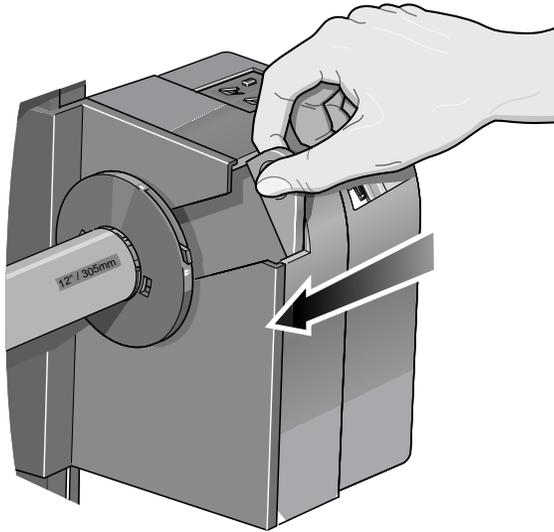


30. Install the take-up reel spindle into the printer by pushing firmly on each end of the spindle A then B as shown below.



31. IMPORTANT: Close the spindle lock.

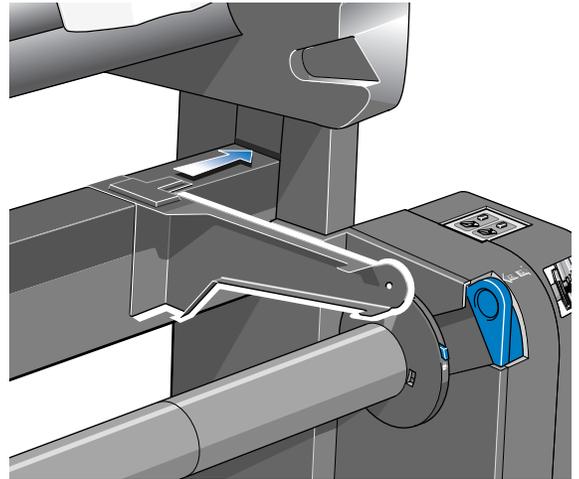
You must close the spindle lock, otherwise the take-up reel will not operate.



32. A paper deflector, which consists of a rod and two supports, is supplied with the take-up reel kit. Fit the left and right supports on top of the printer's cross brace.



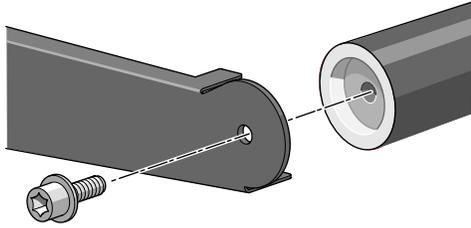
33. Slide each of the deflector supports sideways until the T-piece on top of the support is fully inserted into the gap between the cross brace and the printer leg. The deflector support should now be touching the take-up reel assembly.



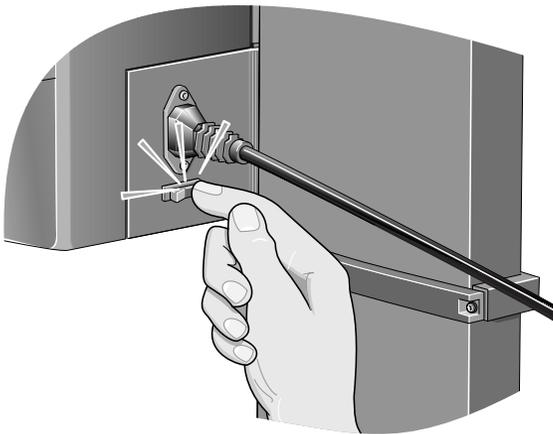
34. Rest the deflector rod on the two supports.



35. Attach it to the supports with the two screws provided.



36. Turn on the take-up reel by pressing the switch at the back.



37. If you have disconnected the printer's power cord, re-connect it now, turn on the power isolator switch at the back of the printer, then turn on the printer using the on/off button on the front panel.

38. Wait until the printer has finished initializing and a "Ready" message is displayed on the front panel.

You have now finished installing the take-up reel.

Loading Paper on to the Take-Up Reel

Before using the take-up reel, ensure that it has been properly installed (see preceding pages). In particular, the core tube should be mounted on the spindle.

CAUTION

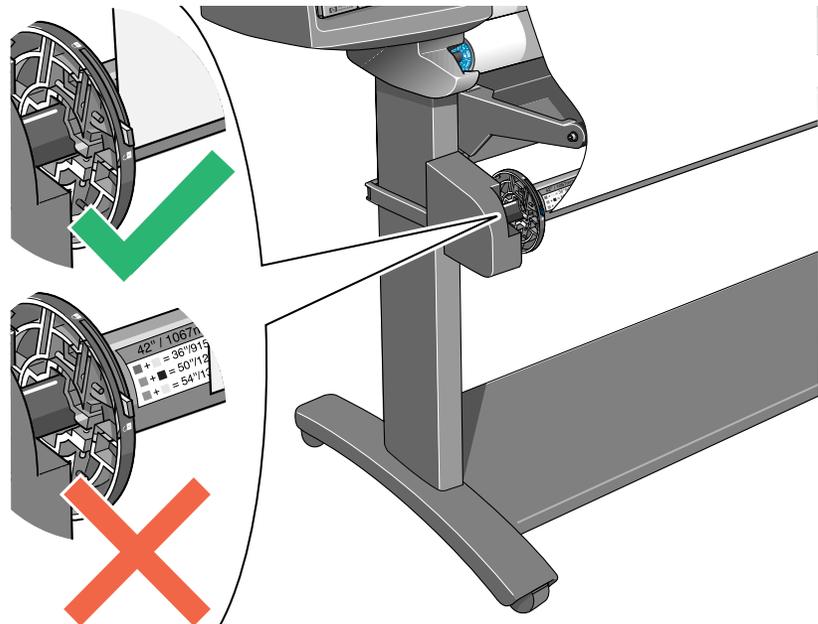
HP Bright White Inkjet Paper is available in 150-ft and 300-ft rolls. The take-up reel can only completely roll up 150-ft rolls.

CAUTION

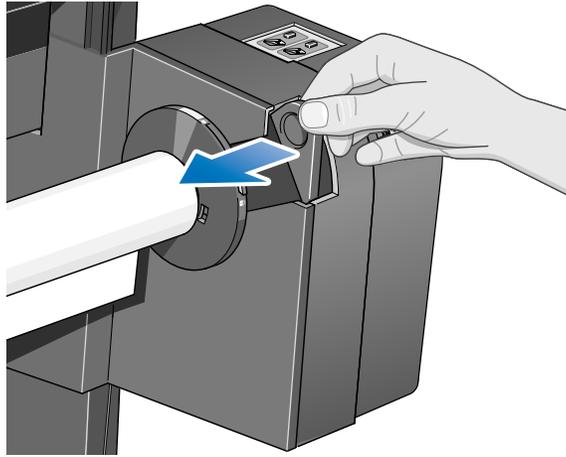
Backlit paper with a separate slip sheet is not recommended for use with the take-up reel.

- If you already have a roll of paper in the printer, go to the front panel and select the Roll Paper menu. Set the “TUR loaded” option to **Yes**. Now go to step 1 below.
- If you do not already have a roll of paper in the printer, load the roll according to the instructions in Chapter 3 of the *User's Guide*. Soon after you have selected the paper type, the front panel will offer the option “Load Take-Up Reel (TUR)”, which can be set to **No** or **Yes**. Select **Yes**. Continue with step 1 below.

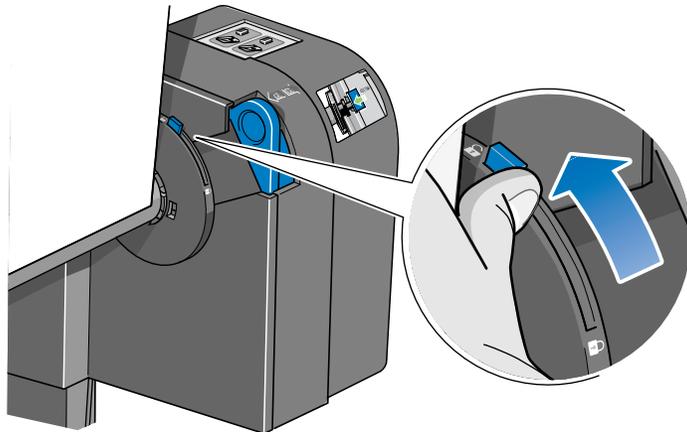
- 1 The front panel will prompt you to move the paper using the arrow keys. Use the ↓ key to move the leading edge of the paper down until it is level with the centre of the core tube. Make sure the paper passes in front of the deflector, as shown below. If you move the paper too far by mistake, use the ↑ key to move the paper back up.



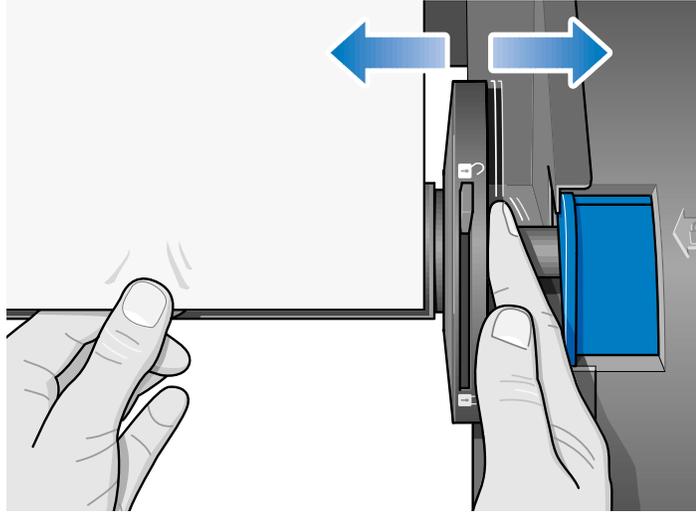
- 2 Ensure that the spindle lock is closed.



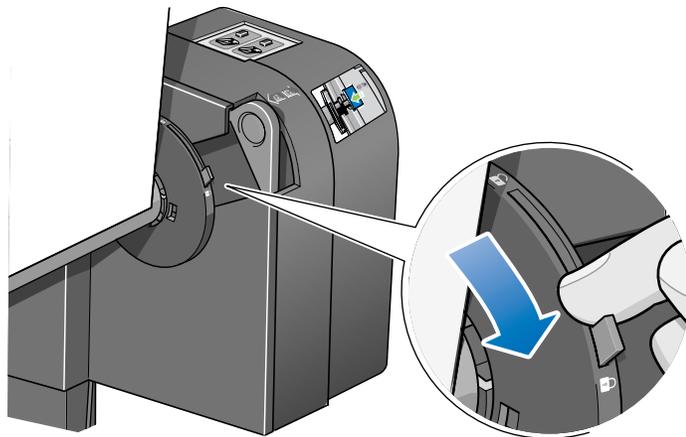
- 3 Move the adjustment levers on the left and right paper guides to the unlocked position. 



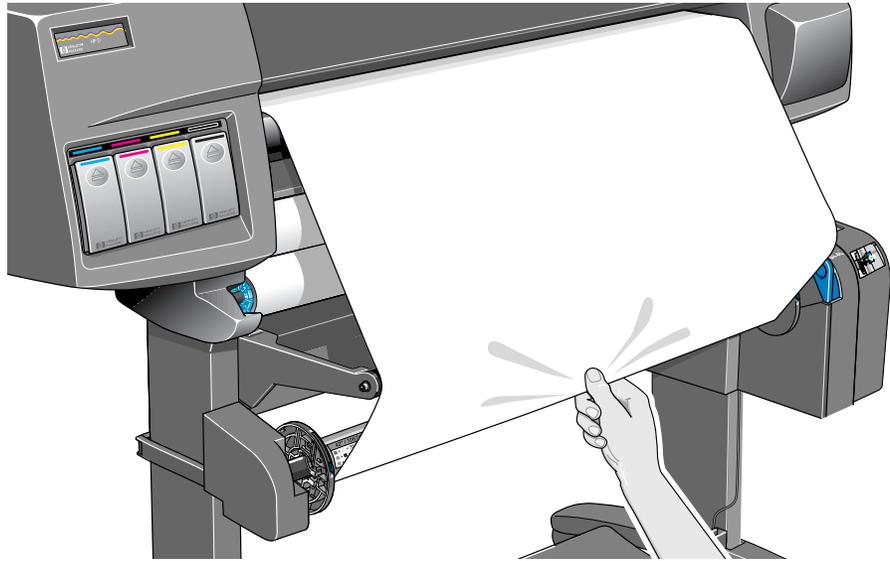
- 4 The two paper guides and core must be positioned on the take-up reel spindle so that the paper is in the center, between the paper guides. Adjust the position of the core as shown below. The paper guides may be slightly stiff on the spindle: you may have to use both hands.



- 5 When you have adjusted the position of the core, pull the adjustment levers on both paper guides to the locked position. 



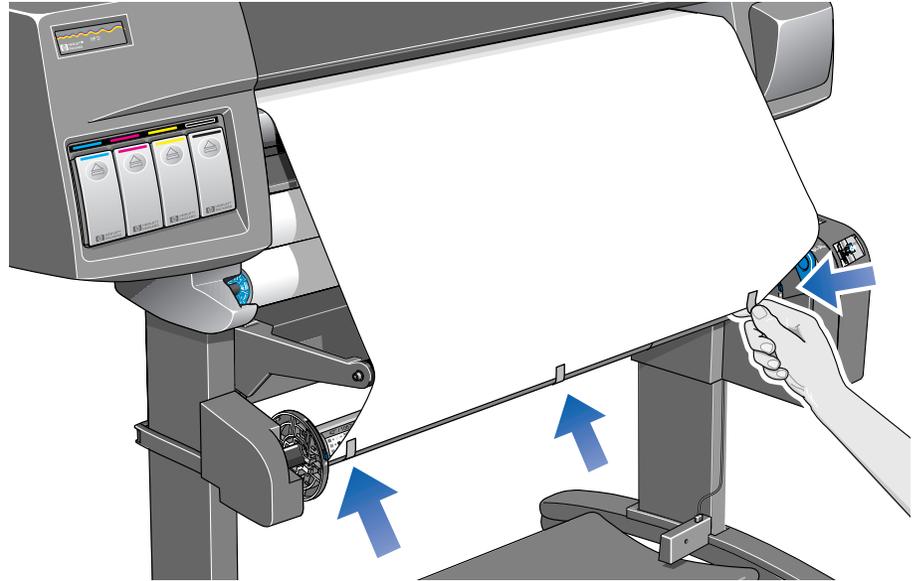
- 6 Pull the paper taut to the position shown below. Do not attempt to pull more paper out of the printer; if you need more paper, use the front panel.



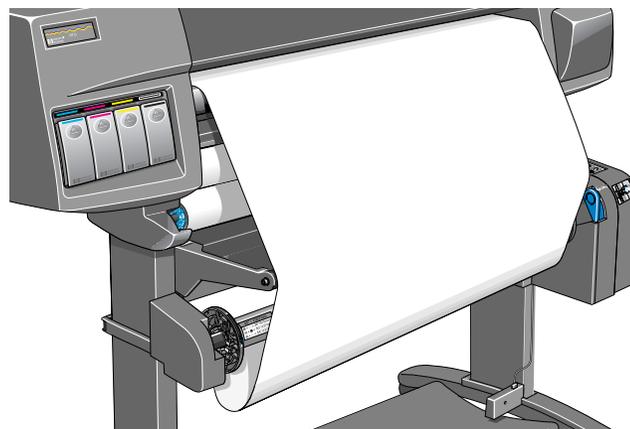
- 7 Use a small amount of sticky tape to attach the paper to the core. Use three strips, one in the middle (first) and then one at each side of the paper.

NOTE: Use only tape that will not tear the paper when it is removed later.

NOTE: To avoid the paper skewing as it is wound onto the core tube, ensure the paper is straight when it is attached.



- 8 Press the ↓ key on the front panel to advance the paper. Enough paper should be advanced so that the paper can wrap at least once around the core.

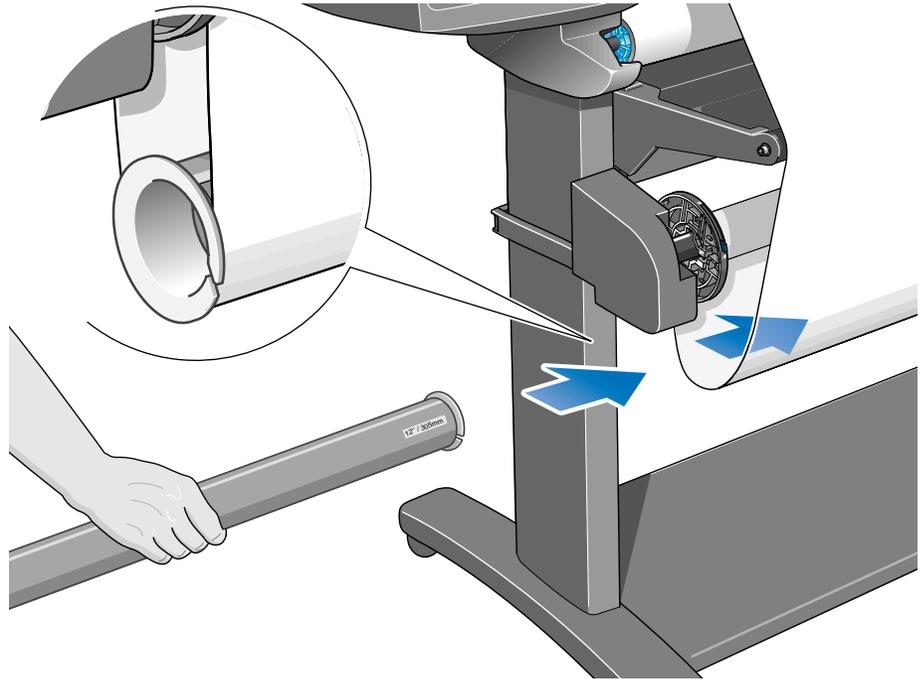


Advance about this
much paper

- 11 Carefully insert the paper weight. Ensure that the end caps are installed and extend over the edges of the paper.

CAUTION

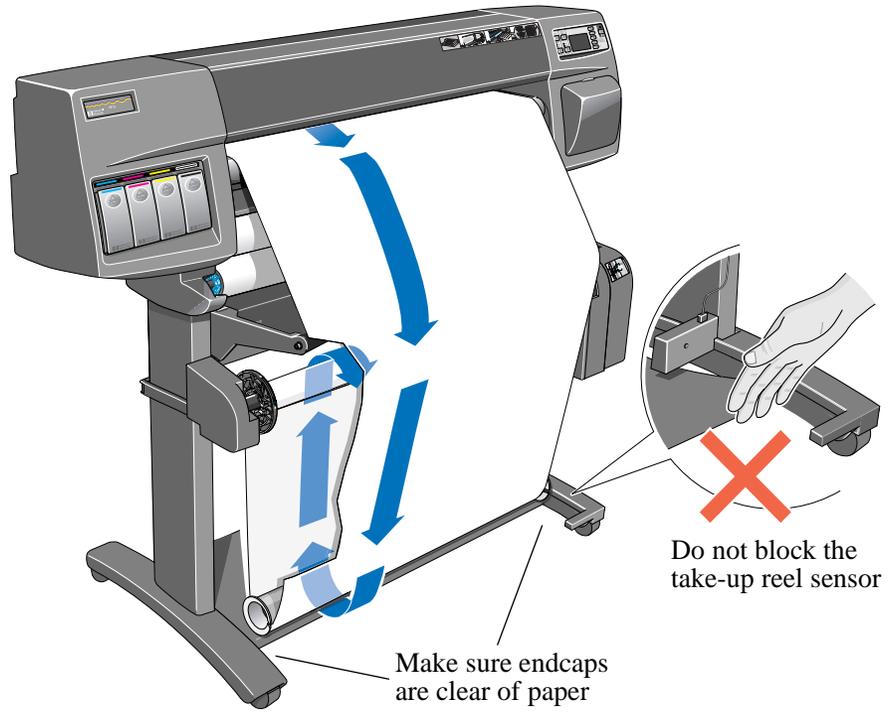
It is important that the paper weight is inserted. The take-up reel will not function properly without it.



- 12 Press **Enter** on the printer's front panel, which will then display the Ready message.

NOTE: When the take-up reel is in operation it is important to ensure that the take-up reel sensor is not blocked.

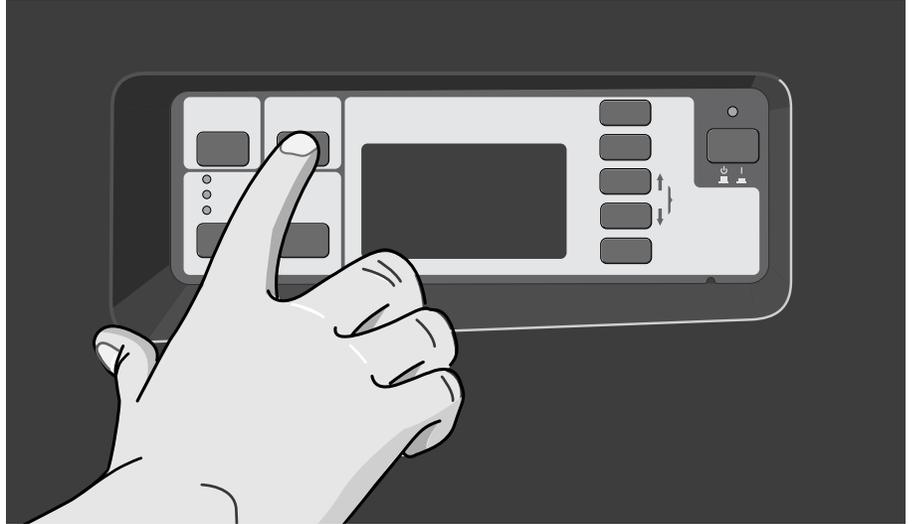
- 13** Shown below is how the printer should look when it is in operation. As paper is fed from the printer it drops down in a loop and up into the take-up reel spindle.



Unloading Paper from the Take-Up Reel

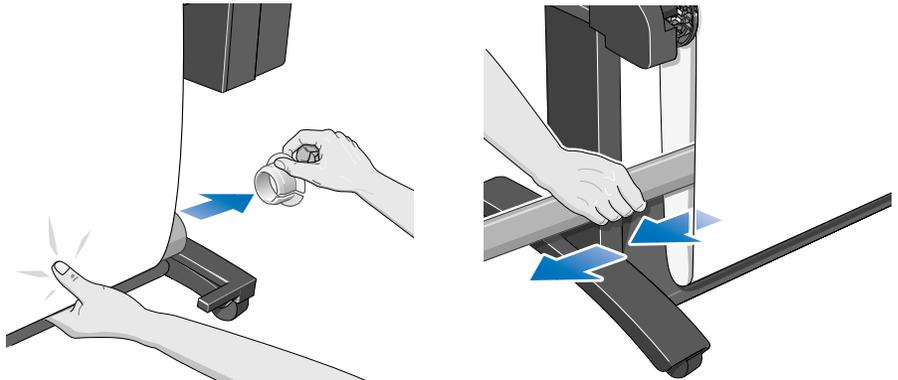
To unload the roll paper from the take-up reel, perform the following procedure.

- 1 Ensure that the ink is dry. See *Drying Time with the Take-Up Reel* (page 36).
- 2 Press the **FORM FEED AND CUT** key on the front panel.

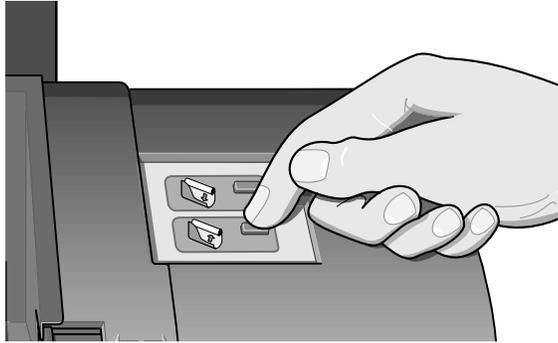


The front panel will prompt you to remove the paper weight and wind excess paper using the take-up reel buttons.

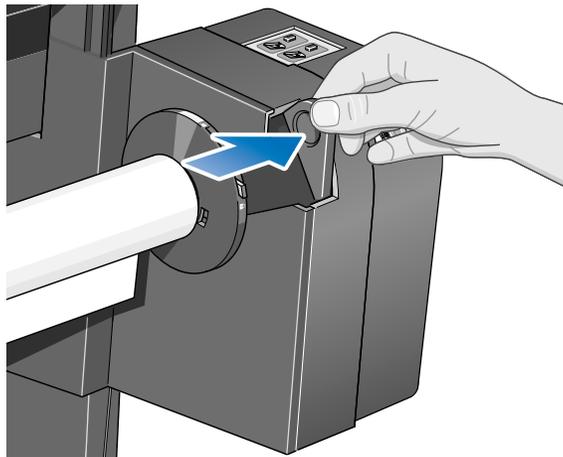
- 3 **Important:** Remove the paper weight as shown below. It may help you to remove the end-caps first.



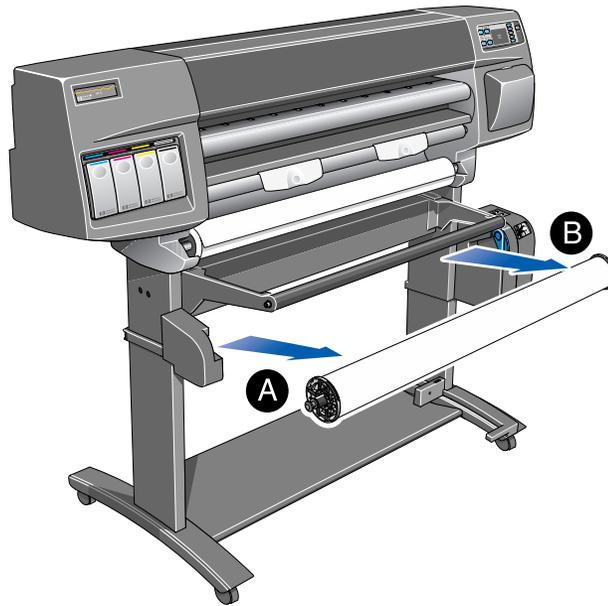
- 4 Press the paper wind button shown below to wind the paper hanging down onto the take-up reel.



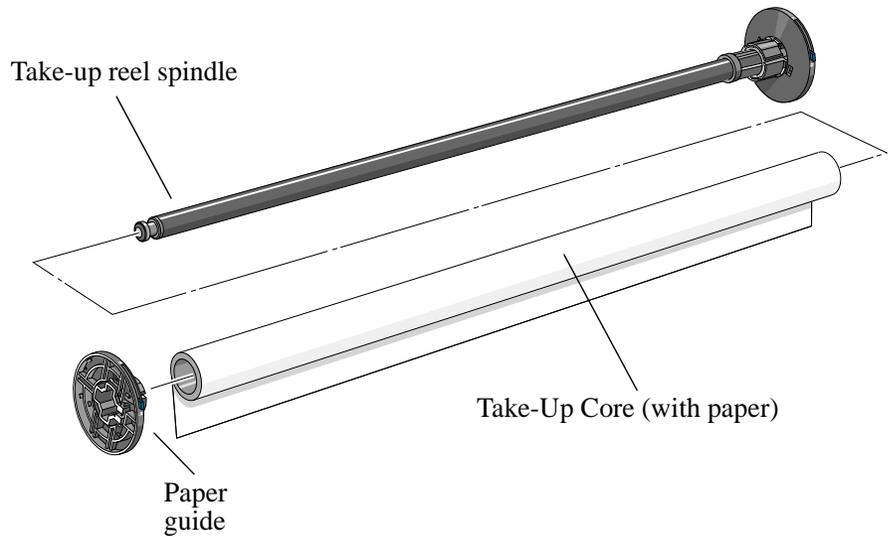
- 5 Press **Enter** on the printer's front panel. The printer will now cut the paper.
- 6 Slide open the spindle lock on the right-hand side of the take-up reel.



- 7 Remove the take-up reel spindle.



- 8 Unlock and remove the left-hand paper guide from the take-up reel spindle. Remove the core from the spindle.

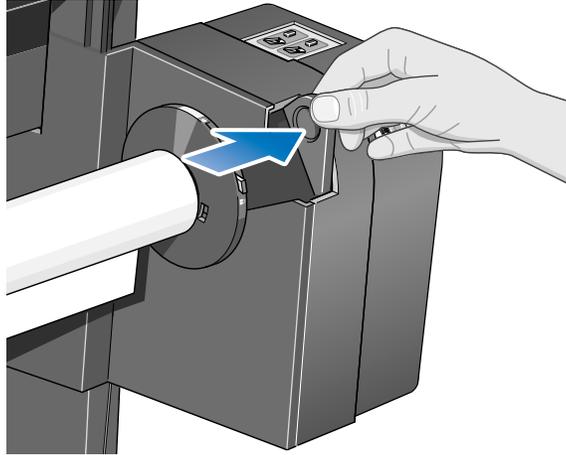


To remove roll paper from the printer, see the *User's Guide*.

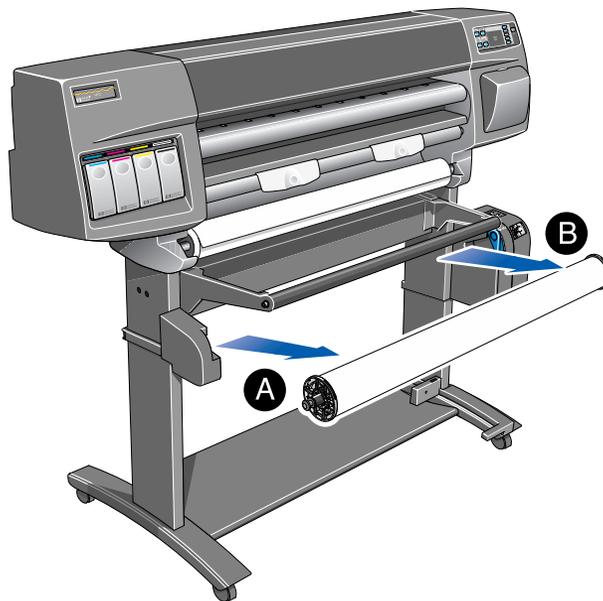
Changing the Core Tube on the Take-Up Reel

The core tube on the take-up reel must be the same width as the paper you are using. To change the core, perform the following procedure.

- 1 Slide open the spindle lock on the right hand side of the take-up reel.



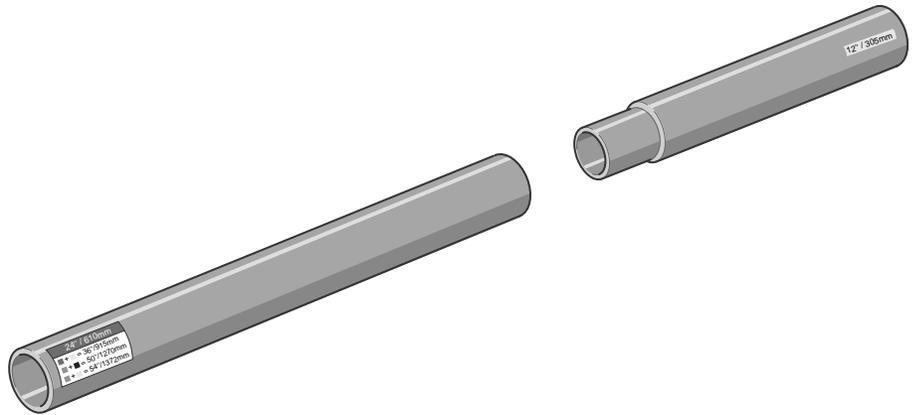
- 2 Remove the take-up reel spindle from the printer as shown by pulling firmly on each end of the spindle, A then B.



- 3 Remove the left-hand paper guide.
- 4 Remove the old take-up core.
- 5 Install the new core you have chosen onto the spindle and re-install the left hand guide assembly.

NOTE: You can also use an empty cardboard tube to replace the plastic take-up core that was supplied with your printer.

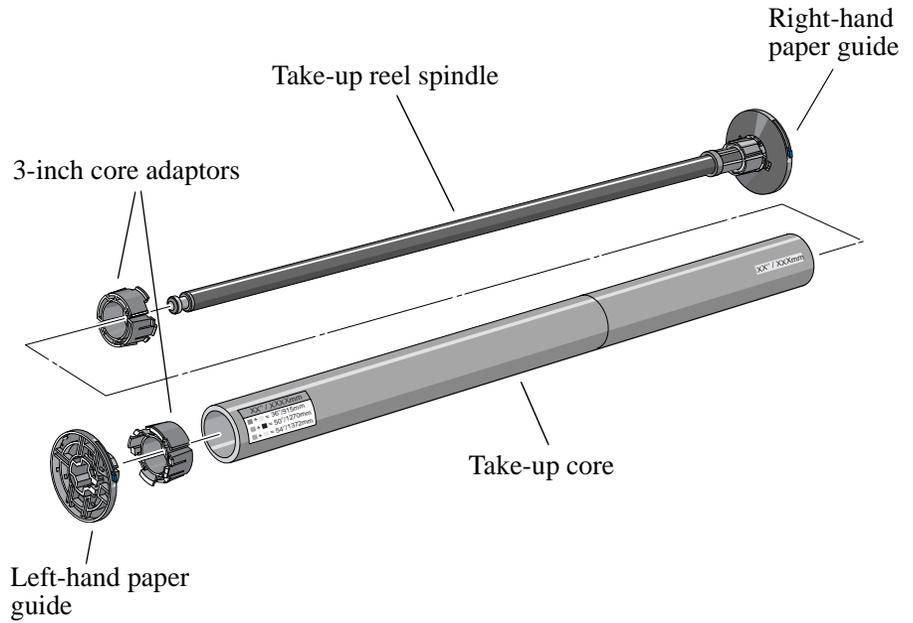
It is important that the take-up core is the same width as the paper you are using. By matching color coded lengths of plastic tube, you can make a take-up core for different widths of standard paper sizes: 24", 36".



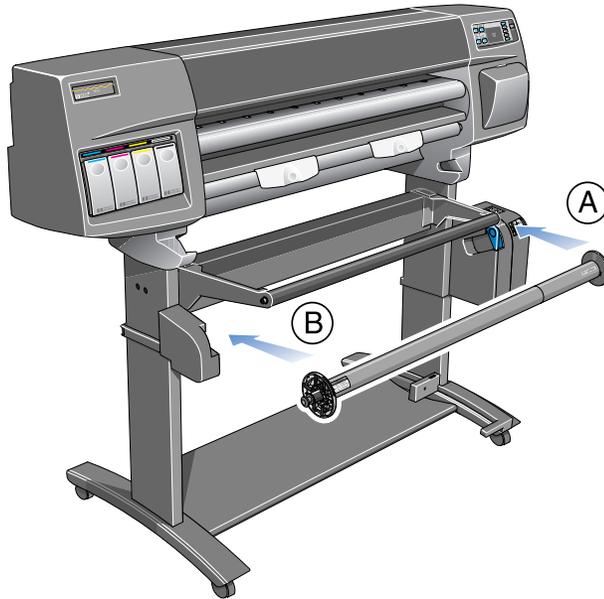
Alternatively, you can use an empty paper cardboard core.

NOTE: Ensure the take-up core is pushed firmly into both paper guides.

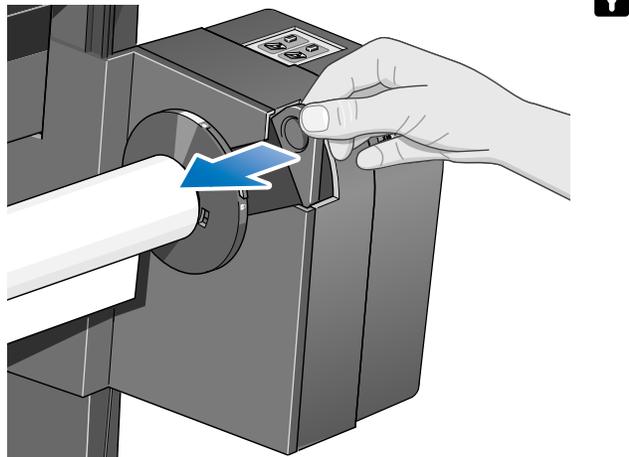
NOTE: If you want to use a three-inch cardboard core, use the three-inch core adaptors shown below.



- 6 Install the take-up reel spindle into the printer by pushing firmly on each end of the spindle, A then B.



- 7 Slide shut the spindle lock on the right-hand side of the take-up reel.



Drying Time with the Take-Up Reel

If the ink is not dry when the paper is wound on to the take-up spindle, then the image will be damaged.

In most cases the take-up reel paper loop gives the print time to dry before it is wound on to the spindle. However, sometimes the print will need a longer time to dry, and so the printer will slow down the printing process to allow more time before winding on to the take-up reel; this is called the *drying time*.



Device Setup

Drying time

There are three drying time settings, which are described below. You can change the drying time setting by selecting the Printer Setup menu on the printer's front panel, then "Device setup" and "Drying time". This is explained in more detail in Chapter 2 of the *User's Guide*.

Drying time=None

This setting means there is no delay to the printing process.

Hewlett-Packard has tested the HP paper range in different environmental conditions. The table below shows paper that may need drying time and what conditions are required to avoid it. This table applies to Best mode only.

HP Paper Type	Width of Printing Area	Maximum Relative Humidity	Maximum Temperature
HP Glossy Photo	12 inches or more	50%	25°C
Matte Film	12 inches or more	45%	25°C
Clear Film	12 inches or more	75%	35°C

Drying time=Automatic

This is the default setting. If necessary, the printer will automatically adjust the drying time depending on the following:

- Type of paper
- Print mode
- Width of printing area
- Environmental conditions

CAUTION

To avoid the printer adding drying time to prints, operate the printer under the following environmental conditions. This table applies to Best mode only.

HP Paper Type	Width of Printing Area	Maximum Relative Humidity	Maximum Temperature
HP Glossy Photo	12 inches or more	45%	25°C
Matte Film	12 inches or more	40%	25°C
Clear Film	12 inches or more	70%	35°C

Drying time=Manual

In this mode you can override the amount of time that the printer has estimated to print your image. However, the printer needs a certain minimum amount of time to print. If the amount of time that you have specified is less than this, the printer will ignore your setting.

Troubleshooting

This page lists some possible explanations of problems that may occur with the take-up reel.

Take-Up Reel Does Not Function

- Perhaps you have a power problem. Check that the power cable is connected and that there is power available at the socket.
- Check that the ON/OFF switch is in the ON position at the back of the take-up reel.
- Check the spindle lever: it should be closed.
- Check that the sensor cable from the right-hand assembly is connected correctly.
- Check that the sensor operates correctly by placing a sheet of paper over the sensor.
- Perhaps you have a defective right-hand take-up reel assembly.
- Perhaps you have a defective sensor assembly.

Paper Skewed on Take-Up Reel

- Perhaps the paper was not loaded straight on the take-up reel core.
- Perhaps the paper weight is not the same width as the paper.
- Perhaps the take-up reel core is not the same width as the paper.
- Perhaps the paper weight is not fully inserted.
- Perhaps the take-up reel spindle is not installed correctly.
- Perhaps the left- and right-hand take-up reel assemblies are not installed correctly.
- Ensure that there are no objects in the base tray assembly.

Take-Up Reel Specifications

Paper Types

- Plain Paper
- HP Translucent Bond
- HP Bright White Inkjet Paper (up to 150 feet/45 meters)
- HP Vellum
- HP Coated Paper
- HP Heavy Coated Paper
- HP High-Gloss Photo Paper
- HP Matte Film
- HP Clear Film
- HP Natural Tracing Paper
- Thin natural tracing paper (more than 70 g/m²)

Power Specifications

Source	100-240V ac ±10%. Autoranging.
Frequency	50-60 Hz
Current	0.2 amp maximum
Consumption	15 watts maximum

Environmental Specifications

Environmental Operating Range	Optimal print quality:	15°C to 30°C (59° F to 86° F)
	Standard:	15°C to 35°C (59° F to 95° F)(except glossy media: 15°C to 30°C (59° F to 86° F)
	Operating Relative Humidity:	20% to 80% Noncondensing
Storage ranges	95% humidity	-40°C to 70°C (-40° F to 158° F)
	Printhead and Printhead Cleaners stored in the HP DesignJet Ink System Storage Container: Temperature: +15°C to +35°C (+59° F to +95° F) @ 20% - 80% Relative Humidity	

EMC (ElectroMagnetic Compatibility) Specifications

Canada	Canadian Department of Communications, Radio Interference Regulations Class B compliant.
European Union	89/336/EEC EMC Directive compliant.
South Africa	SABS licensed.
USA	Federal Communications Commission. Class B digital device. CFR 47 Part 15
Australia New Zealand	Meets AS/NZS 3548
Taiwan (ROC)	BCIQ Certified

Safety Specifications

<p>Constructed according to Information Technology Equipment (ITE) Safety Standard IEC950 Fixed, Class I, Plugable Type A, Installation Category II, Pollution Degree 2. For use in indoor controlled office environments.</p>	
Canada	Canadian Standards Association "Certified" ITE, CSA C22.2 No.950
European Union	73/23/EEC Low Voltage Directive compliant. Meets EN 60950
Germany	TUV EN60950 certified
Mexico	DGN, NOM019-SCFI-1994 certified
USA	Underwriters' Laboratories UL 1950 Listed
Poland	PCBC certified
Russia	GOST certified

Regulatory Notices

Sound

Geräuschemission (Germany) LpA < 70 dB, am Arbeitsplatz, im Normalbetrieb, nach DIN 45635 T. 19.

Electro-Magnetic Compatibility (EMC)

FCC Statements (U.S.A.) The U.S. Federal Communications Commission (in 47 cfr 15.105) has specified that the following notices be brought to the attention of users of this product.

Product identification numbers:

Take-Up Reel C6079X (where X denotes any alphabetic character)

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by the Hewlett-Packard Company, may cause harmful interference and void the FCC authorization to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interferences by one or more of the following measures:

- Reorient the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

The user may find useful the following booklet prepared by the FCC: “*How to Identify and Resolve Radio-TV Interference Problems*”. This booklet is available from the US Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Normes de sécurité (Canada) Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de *Classe B* prescrites dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

DOC statement (Canada) This digital apparatus does not exceed the *Class B* limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Taiwanese EMI statement

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Address Hewlett-Packard Company
Manager of Corporate Product Regulations
3000 Hanover Street
Palo Alto, CA 94304
415/857-1501

Declaration of Conformity

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Espanola S.A.
Manufacturer's Address: Barcelona Division
Avda. Graells, 501
08190 Sant Cugat del Valles
Barcelona, Spain

Declares that the product

Product Name: HP Take Up Reel
Model Number (s): HP C6079X (where X denotes any alphabetic character)
Product Accessory:

Conforms to the following Product Specifications:

Safety: IEC 950 (1991) + A1,A2,A3,A4 / EN 60950 (1992) + A1,A2,A3,A4
CSA C22.2 No 950 (1995)
UL 1950 (1995)
NOM-019-SCFI-1994
GB 4943 (1995)
IEC 825-1 (1993) / EN 60825-1 (1994) Class 1 for LED

EMC: CISPR 22:1993 / EN 55022 (1994): Class B
EN 50082-1 (1992)
IEC 801-2:1991/prEN 55024-2 (1992): 4KV CD, 8KV AD
IEC 801-3:1984/prEN 55024-3 (1991): 3V/m
IEC 801-4:1988/prEN 55024-4 (1993): 1KV Power Lines
IEC 1000-3-2 (1995) / EN 61000-3-2 (1995);
IEC 1000-3-3 (1994) / EN 61000-3-3 (1995);
FCC Part 15 - Class B / DOC-B / BCIQ-A
AS/NZS 3548 / GB9254:1988

Supplementary Information:

The product herewith complies with the requirements of the Low-Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking accordingly.

The product was tested in a typical system with a Hewlett-Packard DesignJet series printer.

Sant Cugat del Valles (Barcelona),
10th of May 1999



Josep-Maria Pujol,
Site Quality Services Manager

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ - TRE,
Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX: +49 7031 143143)



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Hewlett-Packard Company
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08190 Sant Cugat del Vallès
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