

CHAPTER 4

PREVENTIVE MAINTENANCE

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4-1. INTRODUCTION

There is very little in the way of routine operator maintenance needed on the HP 33440. Most maintenance and adjustment procedures are carried out only when there is a print quality or paper feed problem.

4-2. LIFE EXPECTANCY of CONSUMABLES

The expected service lives of these parts are as follows:

Table 4-1. Service Life of Consumables

Description	P/N	Qty	Service Life (# of prints)	Remarks
1. EP Cartridge	92295A	1	approximately 4000 (application dependent)	If you shake the cartridge when the TONER LOW message appears. cartridge life may be prolonged.
2. Cleaner Pad	RG1-0966-000CN	1	with cartridge	
3. Fusing Assembly	RG1-0139-000CN 115 V RG 1-0940-000CN 220/240 V	1	100.000	
4. Paper Feed Roller Assembly	RG1-0931-000CN	1	100.000 or anytime the separation pad is replaced.	
5. Separation Pad	RFI-1 145-000CN	1	100.000 or anytime the feed roller assembly is replaced.	
6. Ozone filter	RA1-4081-000CN	1	100.000	

NOTE

The 100.000 page component list is ONLY AN ESTIMATE. The individual customer's printer may see wear rates greater than or less than the 100.000 page estimate. This estimate is directly related to the type of paper and the performance of the printer. Always inspect these components for wear when servicing the printer and REPLACE IF NECESSARY. The expected service life estimates are based on A4 or letter size prints with an average of 5% toner image a density setting of "7". in the effective image area. The control panel self test is approximately a 12% coverage.

Items 3, 4 and 5 above should be inspected for excessive wear and replaced if necessary whenever a printer is being serviced. The service lives will vary with different types of forms usage. usage levels and environments.

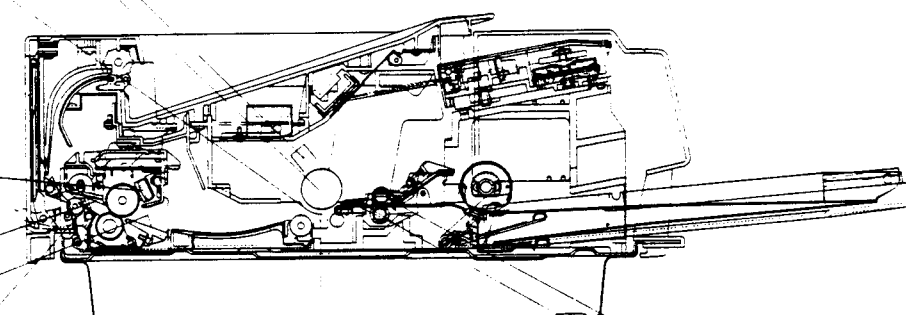
4-3. SERVICE CHECKPOINTS

EP Cartridge

Point	Tool/solvent	Remarks
Primary corona wire	-	Clean with wire cleaner supplied with printer
Photo-sensitive drum	Toner	Unless absolutely required, drum should not be touched or cleaned. Never clean with anything but toner. Do not expose to light.
Protective shield for drum	Damp cloth	Image may be stained by falling toner so always clean this part.

Fuser Assembly

Point	Tool/solvent	Remarks
Fuser roller cleaner pad	-	If dirty, prints will be dirty and there will be jams.
Separation claws	Isopropyl alcohol	Be careful. The tip of the claw is easily damaged.
Paper guides		
Lower delivery guide		



Feeder Unit

Point	Tool/solvent	Remarks
Feeder guide	Damp cloth	

Transfer Corona Assembly

Point	Tool/solvent	Remarks
Transfer corona wire	Isopropyl alcohol Cotton swab	Wipe with dry cloth, then clean with lint-free paper dampened with alcohol.

Transfer Area

Point	Tool/solvent	Remarks
Registration rollers	Damp cloth	
Transfer guides	Damp cloth	

CAUTION

Do not clean or expose rubber rollers or parts to isopropyl alcohol. Do not use ammonia-based cleaning products.

4-4. EP CARTRIDGE LIFE

The electrophotographic (EP) cartridge in the HP 33440A printer is a clean and convenient means of supplying the "consumable" items needed in the printing process. The cartridge contains an electrophotographic print drum and a supply of toner.

When using the HP 33440A printer for typical word processing printing an EP cartridge lasts approximately 4000 pages.

If your average page coverage is lighter than most (a typical page has a great deal of "white space"), then the EP cartridge should last for more pages. If the application requires a denser coverage of the page (with print or graphics), then the EP cartridge will not last as long.

The life of an EP cartridge can be significantly extended by running the printer with the print density adjustment dial set on a higher number (for lighter print). It is advisable to consider this for printing routine pages that can be lighter print. See "Adjusting Print Density" on page 4-5 for help.

CAUTION

Do NOT attempt to refill a used cartridge. Damage to the printer can result.

4-5. WHEN TONER LOW IS DISPLAYED

If the *16 TONER LOW* message appears, it indicates the toner level in the EP cartridge is getting low. White streaks will soon appear on printouts. Use the following procedure to help redistribute toner and get the maximum usable life from the EP cartridge:

1. Remove the EP cartridge
2. Shake the EP cartridge from side to side to distribute toner.
3. Re-insert EP cartridge.

The *16 TONER LOW* warning may still be displayed but the fade out will clear up for about 60-100 more pages. If the fade-out condition persists, the EP cartridge needs to be replaced with a new one.

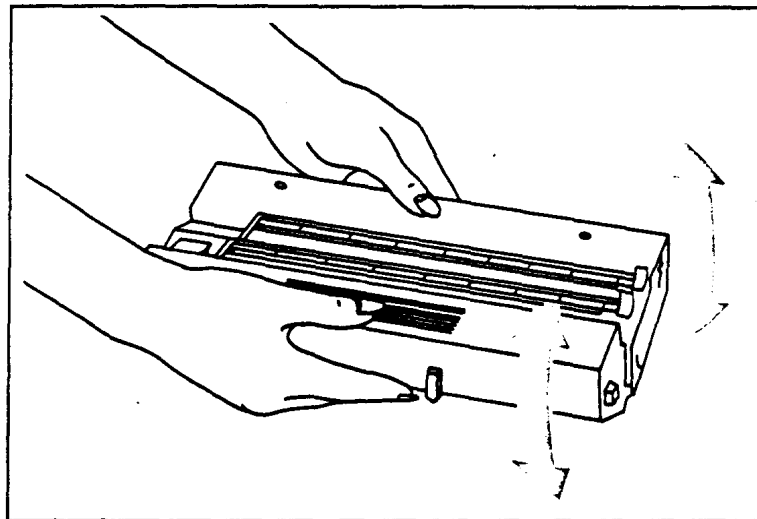
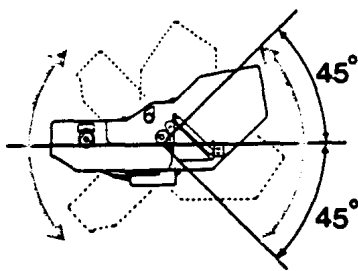


Figure 4-1. Shaking the EP cartridge

4-6 ADJUSTING PRINT DENSITY

Print density refers to the relative darkness of the print on the paper. Very dense print appears very black with a slightly "heavier" look. Less dense print looks lighter, and solid filled areas may not be totally black.

When you print with the density set at a low number, you use the toner (contained inside the EP cartridge) at a faster rate than with a higher number print density settings. The lower number setting reduces the life of the EP cartridge. Printing with the print density set to a higher number is a good way to conserve toner when darker (heavy) print is not necessary.

To adjust print density:

1. Open the printer's top cover.
2. Turn the numbered dial located at the left end of the front of the printer. "1" is the darkest setting and will use toner the most rapidly. "9" is the lightest setting and will use the least toner. An initial setting of "5" is recommended.
3. Firmly close the printer's top cover.

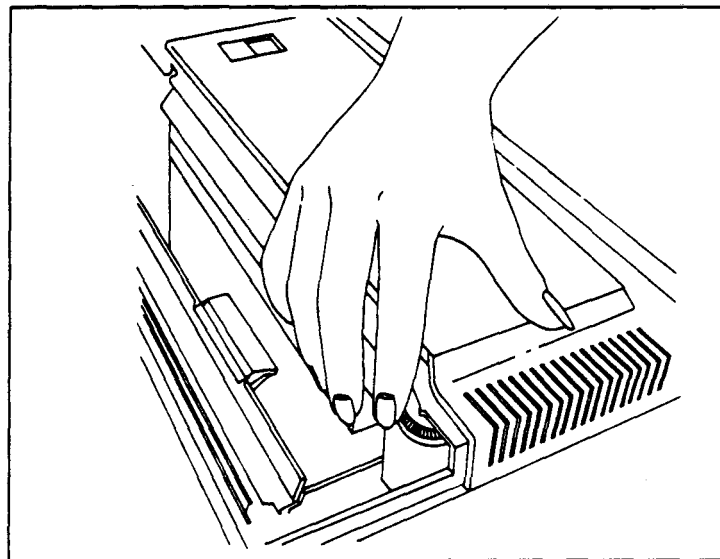
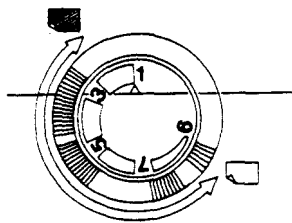


Figure 4-2. Adjusting Print Density

4-7. CLEANING THE PRINTER

If reduced print quality occurs, clean the inside of the printer by wiping any visible toner away with a damp cloth.

There are five areas of the printer which should be cleaned:

- transfer corona
- transfer guide
- registration assembly
- paper feed guide
- beam-to-drum mirror

CAUTION

The printer must be turned off prior to cleaning.

Transfer Corona Wire

1. Turn the printer OFF.
2. Open the printer's top cover.
3. Dip a cotton swab in isopropyl alcohol. Water can be used if isopropyl alcohol is not available. Make sure the swab is not dripping.

CAUTION

Be careful not to break the mono-filament lines that cross above the transfer corona wire. Also, be careful not to get alcohol on any rollers or plastic parts.

4. Gently wipe the transfer corona wire with the cotton swab until no residue remains.

NOTE

If a cotton swab is not immediately available, you can use the small green brush located inside the printer to the left of the paper feed guide.

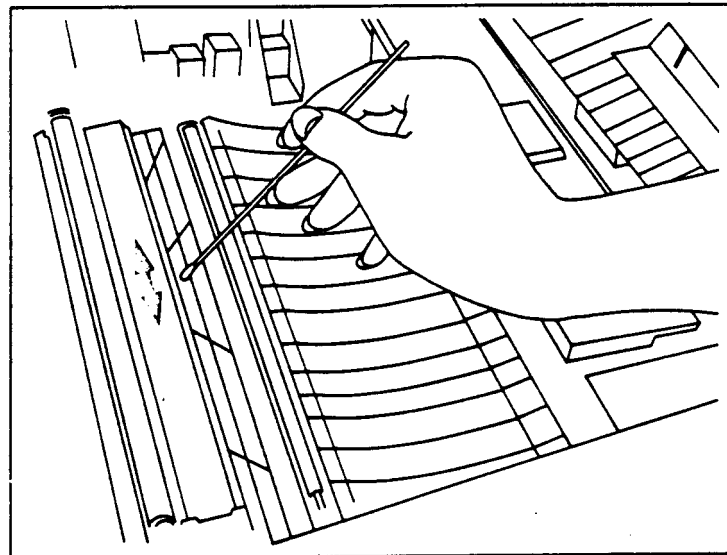
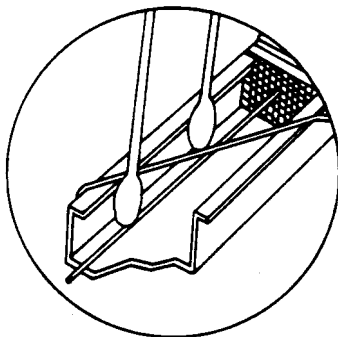


Figure 4-3. Cleaning the Transfer Corona Wire

Transfer Guide

1. Open the printer's top cover.
2. Wipe the silver strip of the transfer guide clean with a damp cloth (use water only)

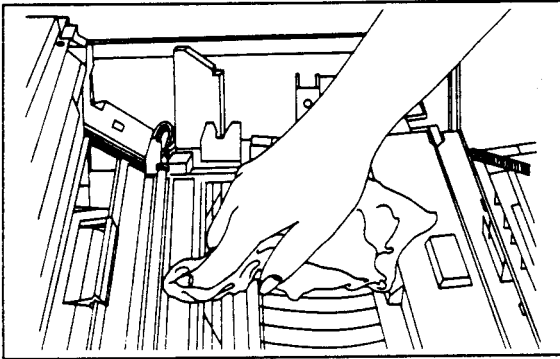


Figure 4-4. Cleaning the Transfer Guide

Registration Assembly

Lift the cover of the registration assembly and wipe off with a damp cloth, any paper dust underneath the registration assembly cover.

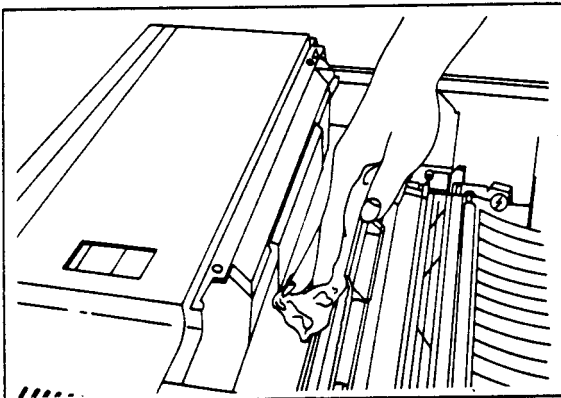


Figure 4-5 Cleaning the Registration Assembly

Paper Feed Guide

Wipe off the paper feed guide with a dampened cloth (use water only)

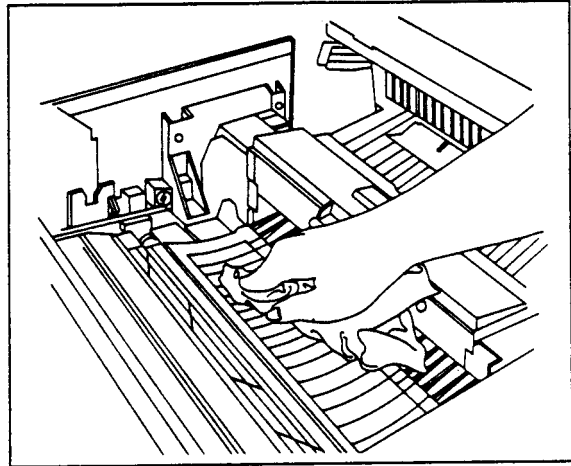


Figure 4-6 Cleaning the Paper Feed Guide

WARNING

The fusing area gets **HOT**. Also, be careful not to get toner on your clothing; it may stain.

Beam-to-drum Mirror

Access the beam-to-drum mirror by moving the shutter assembly to the right, freeing the lever and swinging the assembly up and out of the way. Clean the mirror with a clean, damp, lint-free wipe.

4-8. CLEARING PAPER JAMS

If *13 PAPER JAM* appears in the display window, open the printer's top cover and look for jammed paper. Paper jams occur mainly in the following three areas:

- Fusing assembly area
- Transfer Guide
- Paper pick-up area

The three areas mentioned above and the HP 33440A paper path are illustrated in Figure 4-7.

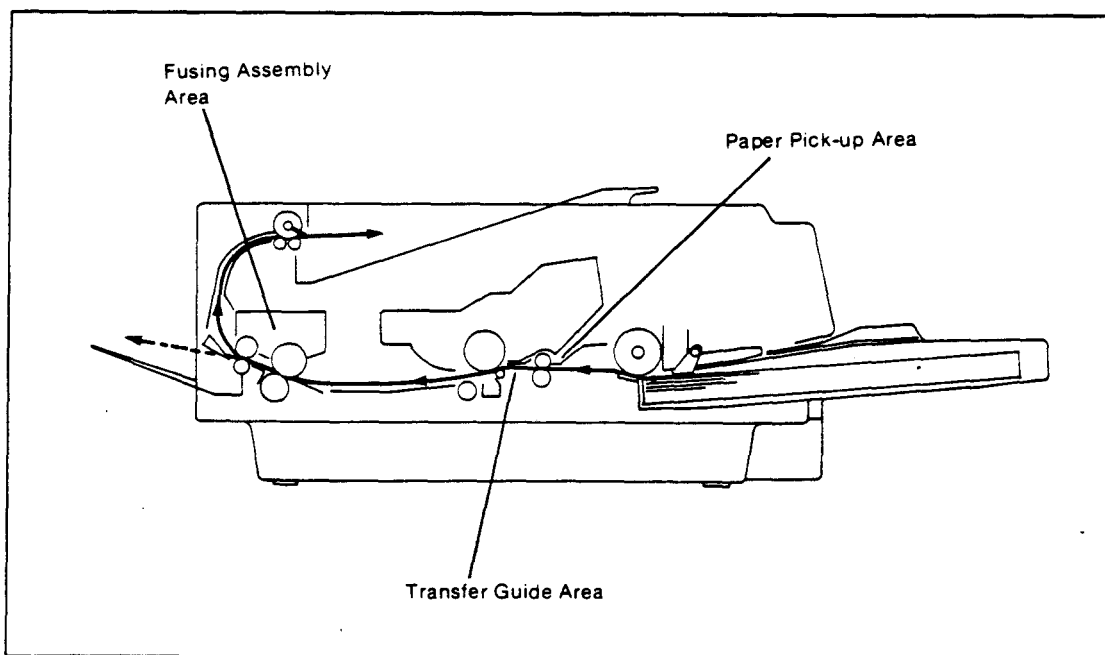


Figure 4-7. The HP 33440A Paper Path.

If the jam occurs in the paper pick-up area, open the registration assembly cover and, if necessary, take out the paper tray to remove the jammed paper.

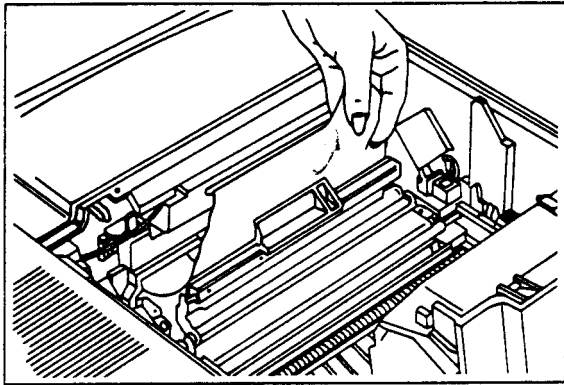


Figure 4-8. Clearing the Paper Pick-up Area.

If the paper Jam is in the transfer guide area, remove the jammed paper as shown in Figure 4-9.

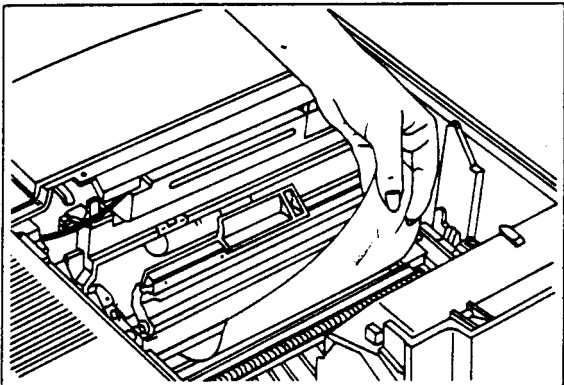
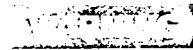


Figure 4-9. Clearing the Transfer Guide Area.

If the paper jam is in the fusing assembly area, open the fusing assembly and remove the jammed paper.



The fusing assembly area gets **HOT**. Also, be careful not to get toner on your clothing; it may stain.

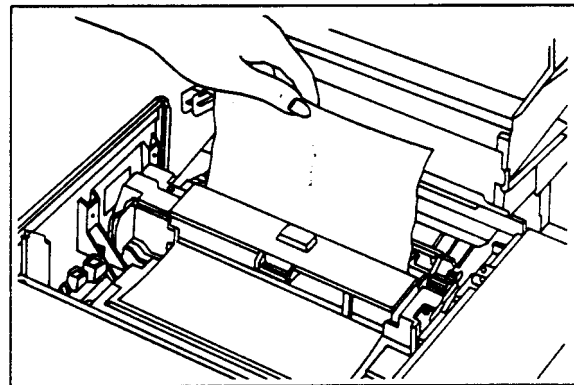


Figure 4-10. Clearing the Fusing Assembly Area.