Instructions for changing a fuser gear on a Brother printer

The same fuser gear is used in the following printers and all-in-ones: Brother HL-5030, Brother HL-5040, Brother HL-5050, Brother HL-5070N, Brother HL-5130, Brother HL-5140, Brother HL-5150D, Brother HL-5170DN, Brother MFC-8220, Brother MFC-8440, Brother MFC-8640D, Brother MFC-8840D, Brother MFC-8840DN, Brother DCP-8040, Brother DCP-8045D.

The replacement fuser gear can be ordered direct from Brother's Parts/Accessories Dept. at 1-888-879-3232 for $2.80 + $3.00 postage. You can also order via eBay ($10-15) or Precision Roller (spendy). The part number is: **LJ7416001** - HR GEAR 34. Sum the pricing and shipping to determine the least expensive total cost.

The only tools you will need are a regularly sized Phillips screwdriver and a smaller flat tip screwdriver.

Make sure you discharge yourself of any static electricity before and while you work on the machine. You may wish to protect the surface on which you are working on the machine from scratches from the sheet metal on the base of the printer as you twist the unit.

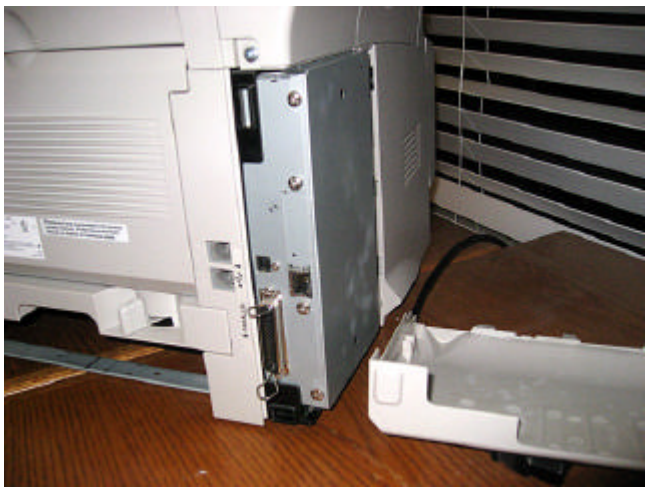
While many of these steps may be intuitive for a technical person, I have tried to make the instructions simple enough that an average non-technical person can do this easy repair. It will take between 20-30 minutes for the average person to complete the job depending on the options your unit has. I do not have a parts manual with the proper names that Brother uses, so my part names may be different.

The photographs were taken in doing the replacement on the Brother MFC-8840 DN and I believe the instructions will also apply (at least in concept) to the above printers.

Disclaimer: While I have taken every precaution to make sure these instructions are correct, I cannot be responsible for any damage that you might do to your machine or yourself as a result of your attempt to follow them. Use of the instructions is at your sole discretion and risk.

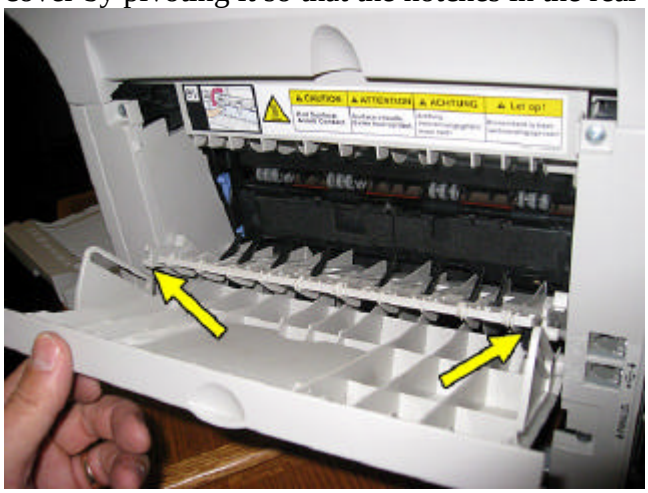
Steps

Remove the paper tray, power cord and any printer cables. Turn the machine so the rear of the printer faces you. Slide the right-hand rear side cover towards the back and remove it.



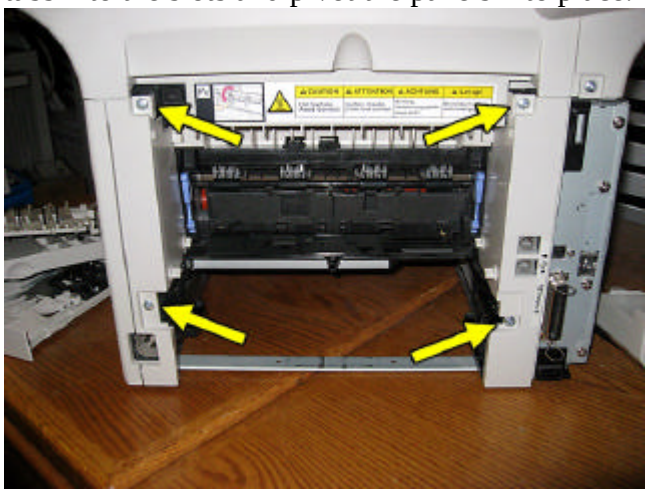
If your unit has one, slide out the duplexing adjustment tray. Note which way the lever is pointing. To the left is for letter and legal size paper. To the right is for A4 size paper. Open the rear cover.

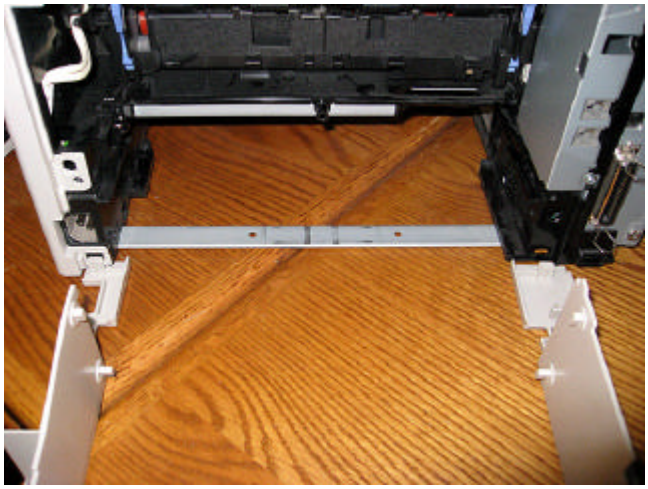

Detach the cover from the inner paper guide by pressing inward on the sliding tabs. Remove the rear cover by pivoting it so that the notches in the rear cover line up with the flats on the pivot points.



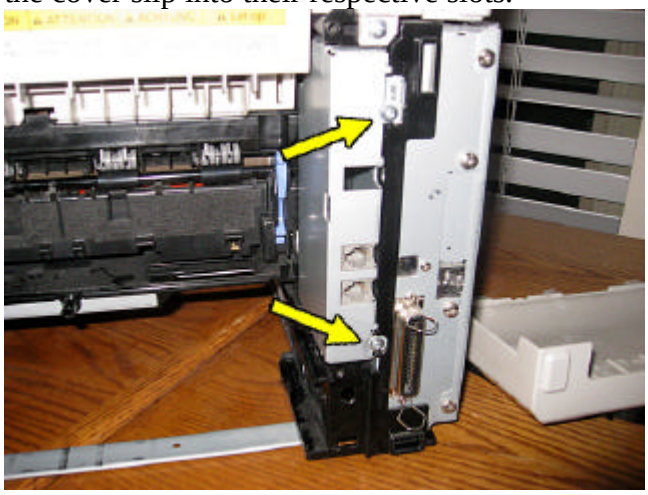

Remove the inner paper guide by pivoting it so the notches lineup with the flats on the pivot points. Please note that they do not line up perfectly and you might have to pull a little harder to get them off. You may also try pushing the pivot point on the right-hand side plastic away from the pivot to make it come apart easier.

Remove the four screws holding in the right and left plastic panels. Remove the panels by rotating them outward and downward. Observe that there are tabs that fit into the sheet-metal of the frame that these right and left panels pivot around. When you reassemble the machine you'll need to insert the tabs into the slots and pivot the panels into place.



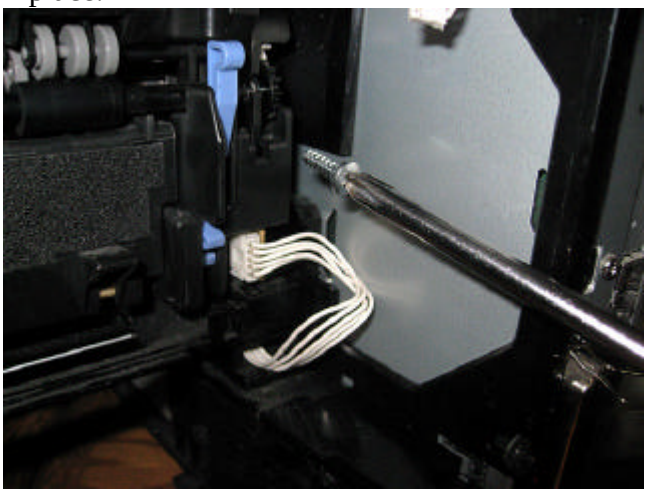


If you unit has a fax modem, remove the two screws holding it in place (see yellow arrows below). This fax modem box has a very short cord connecting it to the machine. You may be able to change the fuser without detaching the box. However I found it easier to remove it. Note the screw towards the left-hand upper side of the box. Unscrew it and remove the cover noting how the metal tabs on the cover slip into their respective slots.

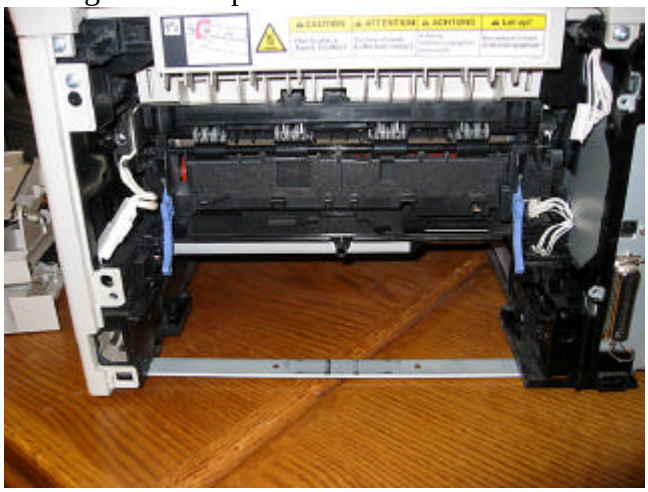
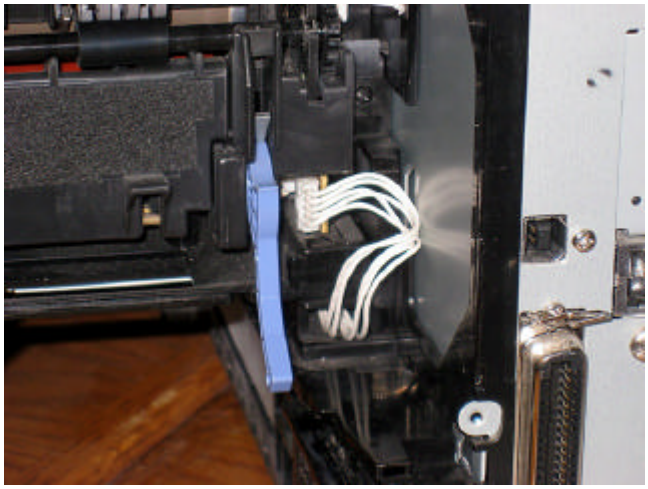


Remove the cover on the fax modem and carefully detach the white cord from its socket. It is a friction hold and there are no tabs that need to be depressed to remove it. Carefully slide the cable and connector through the slot at hole in the top of the metal box.

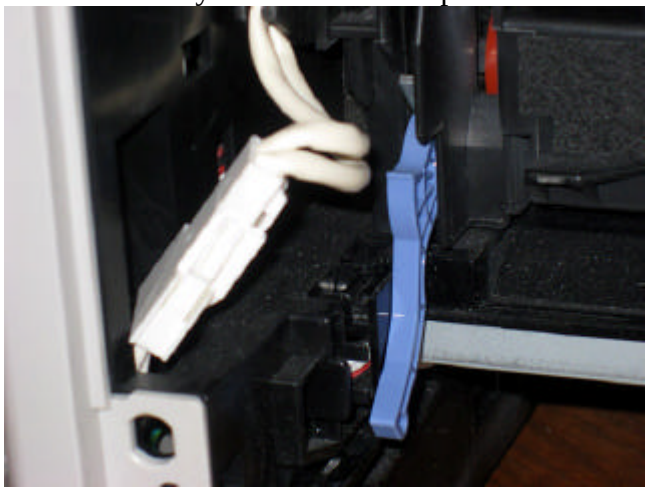
There are two screws holding the fuser unit in place. The one on the right is one for screwing into plastic and is the same as the ones holding on the right and left plastic panels removed earlier. The one on the left is a screw for metal (fine threads) and has a large head. It screws over a spring. Remove both of the screws holding the fuser unit in place.

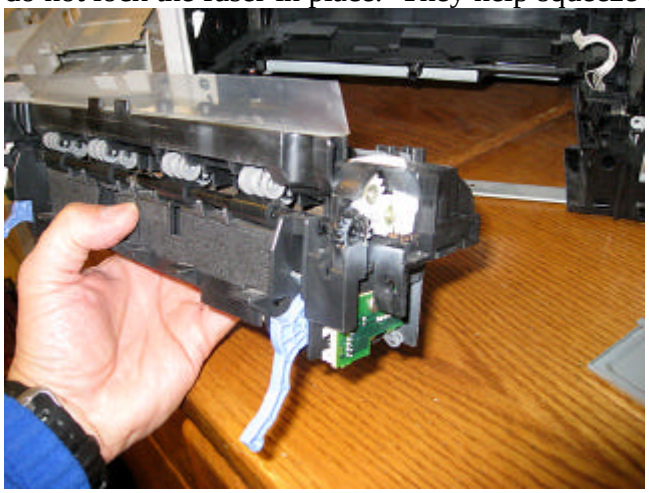
There are two cables connecting the fuser unit to the printer, one on the right and one on the left. Carefully disconnect the connector on the right. It is a friction type connector and there are no locking tabs to depress.

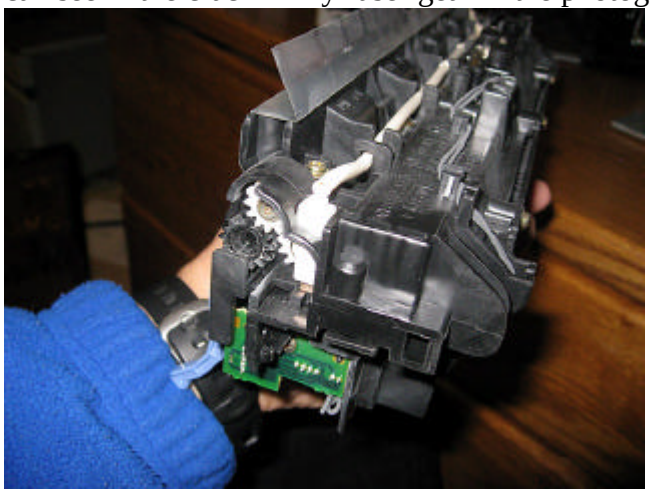
The connector on the left powers the halogen lamp inside the fuser roller. There is a tab on the connector that you will need to depress to unlock and slide the two connector sections apart.

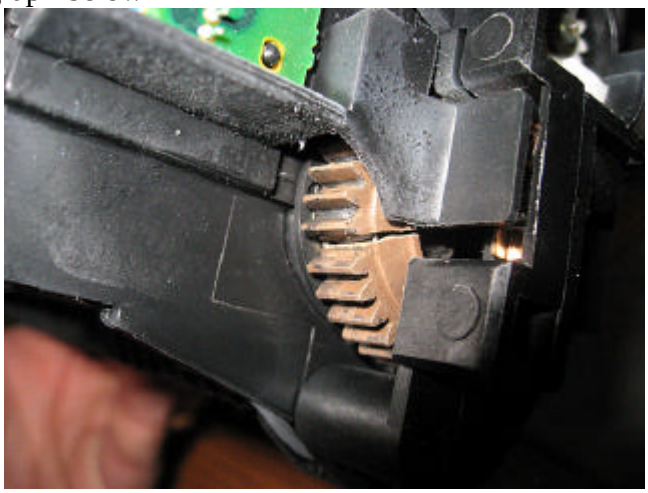


Remove the fuser unit from the printer. If it helps, you can lower the blue levers such as what you see in the above photos, and pull on them evenly to help remove the unit. The spring-loaded levers do not lock the fuser in place. They help squeeze the two rollers inside the fuser unit together.

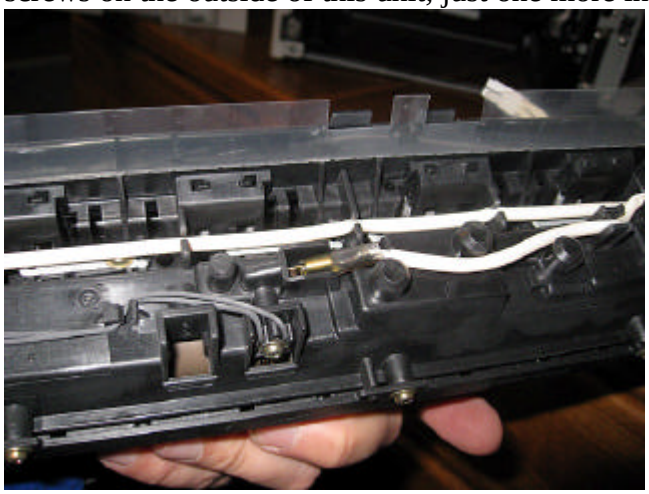


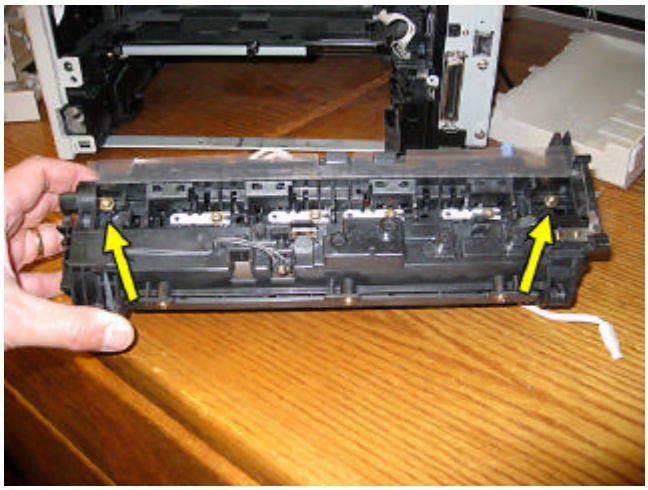
On the right-hand side of the fuser unit, you will see a number of gears. One is black, two are white, and one is brown or tan colored. Rotate the gears until you can see the crack in the fuser gear. You can see in the crack in my fuser gear in the photograph below



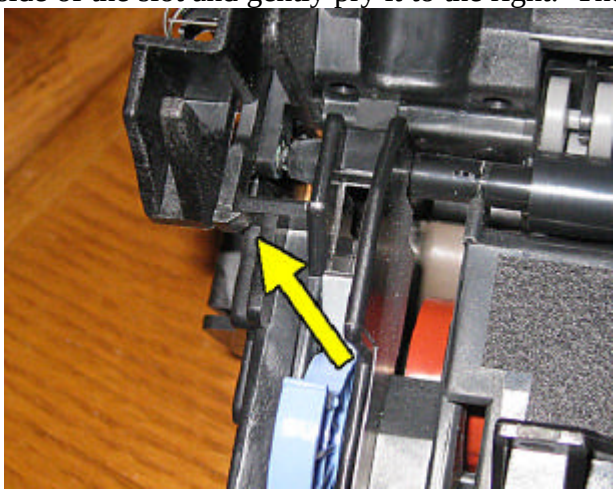
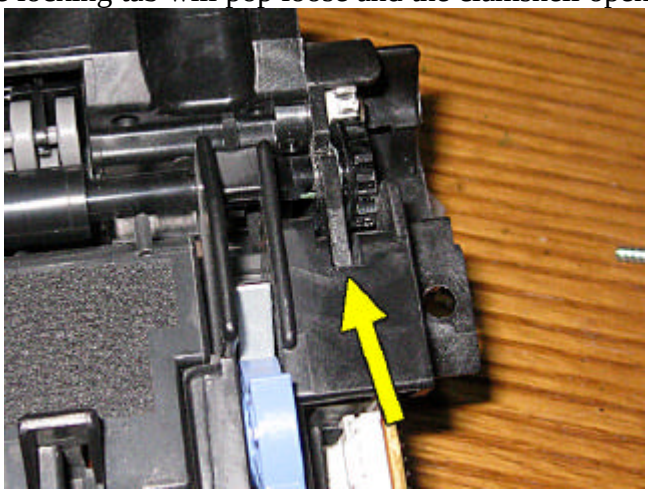


On the top surface of the fuser, you'll see two wires with white insulation. You do not need to remove these wires, but you will need to push them off to the side to access the two screws shown in the next photograph. Remove the two screws indicated. You do not need to remove any other screws on the outside of this unit, just one more inside.

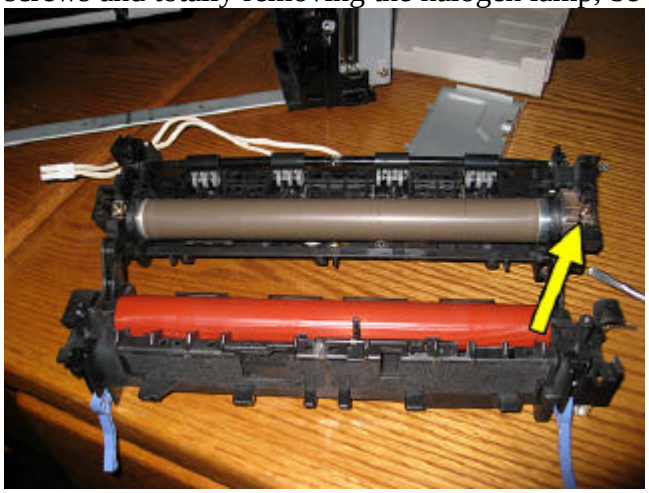




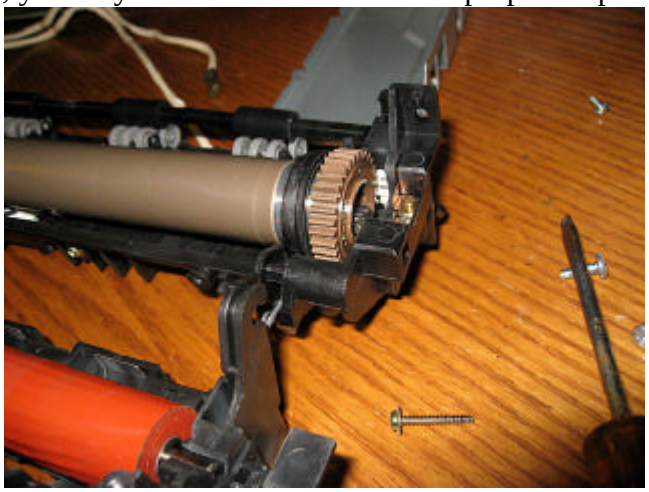
Next are the two less intuitive, but very simple steps. The fuser unit is held together like a clamshell via two locking tabs molded into the plastic. The arrows point to the locking tabs in the photographs below. Using a small flat screwdriver, gently pry the left tab to the left until it snaps loose. The one on the right is barely visible through a slot. Insert a screwdriver between the tab and the left hand side of the slot and gently pry it to the right. The locking tab will pop loose and the clamshell open.

The fuser roller has a halogen lamp inside it that heats up the roller. It is electrically connected and held in place with a screw at either end. For our purposes it is not necessary to loosen the one on the left, but only the one on the right, to which the arrow is pointing. (If you end up removing both screws and totally removing the halogen lamp, be very careful not to get any finger oils on the lamp).



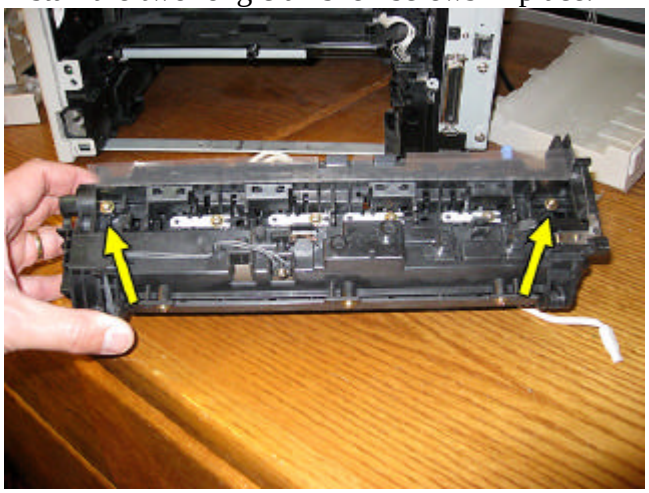
Gently lift up that side of the roller and slide the cracked gear off the roller. If your roller is out of round due to the uneven torque on the broken gear, you may need to reform it into the proper shape.

Slide the new gear into place making sure that it engages the slots on the roller properly. Next to the gear, you'll see a black plastic spacer. There is one on the other end of the fuser roller as well. You may wish to take the time to inspect the spacers to see if they are cracked. Several users have reported that their machines worked fine even when they are cracked because of the way that the roller is held in place. It's up to you whether you wish to replace a cracked spacer or not.

Before closing the clamshell, make sure that the black spacers are rotated and seated properly and that the clamshell closes easily. Make any adjustments as necessary. Once everything lines up, squeeze the clamshell until the locking tabs click into place. Rotate the gears to make sure everything is turning smoothly, and nothing is binding.

Install the two long clamshell screws in place.



Reassemble the machine in the reverse order of the disassembly steps written out above. Here is a brief summary and some tips:

1. Slide the fuser unit back into place. Flip the blue levers up to their normal operating position.
2. Install the two screws holding the fuser unit in place. Remember that the screw for plastic (larger threads) goes to the right and the unique screw with the larger head (with fine threads for metal) goes to the left.
3. Reconnect the two connectors to the fuser unit. For easier assembly of the next steps, you may wish to tuck the wires out of the way.
4. If you have a fax modem and you removed the box from the unit, then carefully slide the small white connector through the slotted hole and into the connector. Put the cover back on the fax modem box and tighten in place using a small fine threaded screw. Slide the fax modem box back into place, noting there are sheet metal tabs on the back right side which slides into matching slots in the printer. Tighten the fax modem box into place using two fine threaded screws.
5. Position the right and left hand rear panels in place, first by engaging the tab on the plastic piece with the slot in the frame, and then pivoting them upward. Fasten them into place using the coarser threaded screws.
6. Install the inner paper guide by pivoting it so the notches lineup with the flats on the pivot points. They do not line up perfectly and you will have to push a little harder to get them to engage properly.
7. Install the rear cover and engage the tabs on the inner paper guide. Make sure that the rear cover closes and opens properly.

8. Install the duplexing adjustment tray. Make sure the lever is pointing to the correct side for the paper size you commonly use. To the left is for letter and legal size paper and to the right for A4 size paper.
9. Install the right hand cover, paper tray and cables.
10. Turn the unit on and verify that the irritating clicking sound that your unit had before has gone away.

Congratulations! You saved yourself some money and you fixed your printer unit yourself!

Hope you found this helpful.

Ed at SharperMinds.net

Shameless promotional plug: If you know of anyone struggling with reading, learning, remembering, focus, i.e. Attention Deficit Disorder, dyslexia and the like, have them visit our website at www.SharperMinds.net. In many cases, these issues can be permanently resolved or greatly reduced through the Sharper Minds program, giving people a much brighter future (all without the need for medications). Works for slowing mental aging and improving athletic ability as well. So effective, we now guarantee it. We were on the BBB Honor Roll (A+ rating) since 1999 due to zero complaints. It really works!