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# Brother DR-200/250/300 Remanufacturing Instructions



## About the Printer

In 1996 Brother released the HL-720 and the HL-1060 (DR-200 and DR-300 respectively). These two printers were targeted at small and home businesses. The resolution for both printers is 600 x 600 dpi and a page yield of 12,000 pages.

During the summer of 2001 Brother released the MFC-4800 (DR-250). Like the previous printers the MFC-4800 was targeted at small and home

businesses. The resolution is 600 x 600 dpi and the cartridge has a page yield of 12,000 pages.

The drum cartridge has a corona wire instead of a PCR. It has a foam cleaner that you can slide along the wire to get the buildup off, that is stealing your drum charging ability. There is a dense foam drum cleaner roller where the wiper blade would be and there is no wastebin.

### Engine Information

Engine Name	Brother® DR-250
Printer Price	\$350
Printer Name	Brother® MFC 4800
First Page Out	N/A
Charger	Corona
Date of U.S. Printer Introduction	August 2001
Print Speed (pages per minute)	10 ppm
Duty Cycle	12,000
Print Resolution (dpi)	600 x 600 dpi

Cartridge Information	Toner Section	Drum Unit
Part Number (HL-2040)	TN-250	DR-250
Cartridge List Price	\$60	\$115
OEM Rated Page Yield	2.2k	20k
Wholesale Price	\$21	\$131

\*Prices as of Jan. 2005

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## WWW.SCC-INC.COM

Get the latest information on the web at Static Control's Brother® DR-250 Online Engine Center at [www.scc-inc.com](http://www.scc-inc.com)

System Support Series™ documents are available on our Web site in Adobe® Acrobat® format.



If you need additional information or technical assistance, please contact your Regional Support Team.

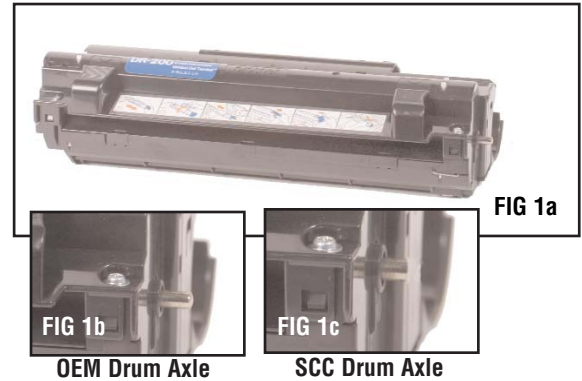
800 488 2426 (USA)  
 919.774.3808 (Int'l)  
 +44 (0) 118.923.8800 (UK)  
[info@scc-inc.com](mailto:info@scc-inc.com) (US Email)  
[info@scceurope.co.uk](mailto:info@scceurope.co.uk) (UK Email)  
[www.scc-inc.com](http://www.scc-inc.com)

# Universal Cartridge Conversion

After these steps all 3 cartridges can be remanufactured following these instructions.

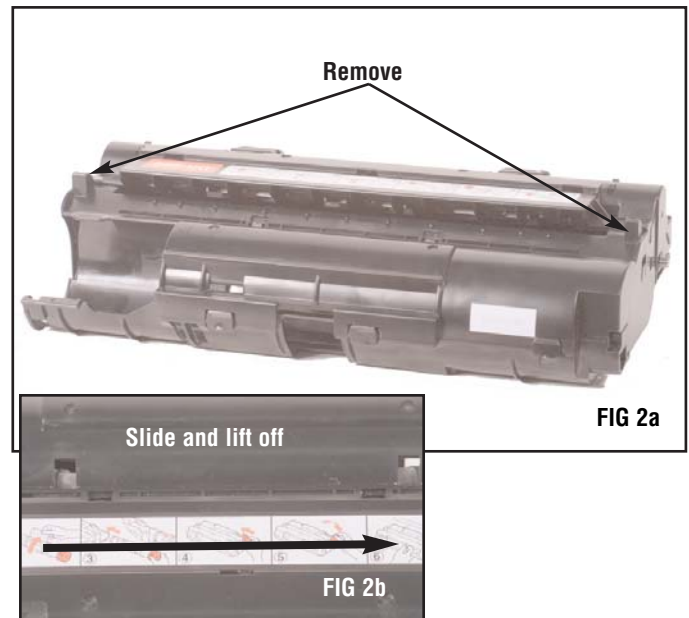
## Brother® DR-200

1. The only aspect that keeps this cartridge from being universal is the Drum Axle. Replace with SCC's B4800DRAXLE when replacing the drum to make the Brother DR-200 universal, see Figures 1a, 1b, and 1c.



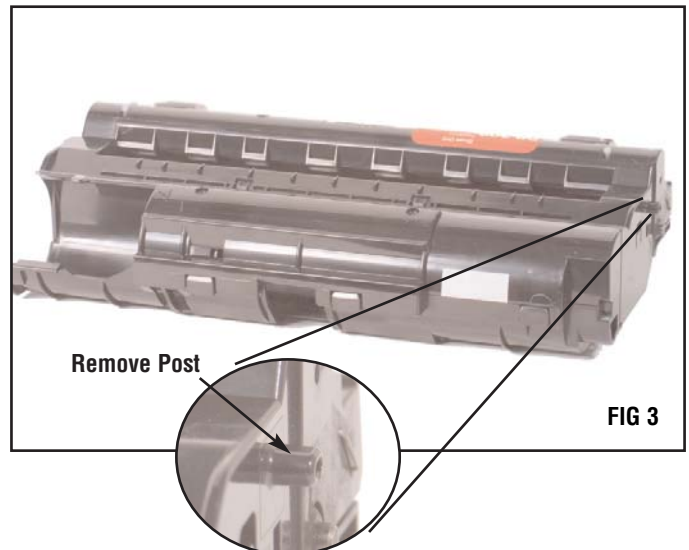
## Brother® DR-250

2. To convert the Brother DR-250 in to a universal cartridge, cut off the two tabs on the top of the cartridge, and to remove the Drum Cover by sliding to unlock and lifting out, see Figures 2a and 2b.



## Brother® DR-300

3. To allow for the Brother DR-300 cartridge to become universal cut off the plastic post from the side of the cartridge, see Figure 3.



## Use of Compressed Air

As of April 28, 1971, the Occupational Safety & Health Administration (OSHA) Standard, 29 CFR 1910.242 paragraphs a & b for general industry requires effective chip guarding and personal protective equipment (PPE) when using compressed air. When cleaning residual toner particles from cartridges using a compressed air system, you must use air nozzles meeting OSHA requirements. Air nozzles that regulate air pressure to a maximum of 30 psi comply with this standard. Refer to the OSHA publication for any updates or changes that have occurred since the date noted above.

## Use of Isopropyl Alcohol

For best results, we recommend using ONLY 91-99% for cleaning as directed in these instructions. 91% Isopropyl alcohol is available at most major drug stores; 99% Isopropyl alcohol is available through distributors of chemical products. Follow the alcohol manufacturer's safety instructions.

## Tools and Supplies You Will Need

### For Basic Remanufacturing:

- Phillips Screwdriver
- Standard Flat Blade Screwdriver
- Small-Tipped Flat Blade Screwdriver
- Needlenose Pliers
- Compressed Air for Cleaning .....(See left)
- 91-99% Isopropyl Alcohol .....(See left)

### The Brother DR-200 cartridge fits in the following printers.

- |            |                   |          |                 |                 |                 |
|------------|-------------------|----------|-----------------|-----------------|-----------------|
| • MFC-4800 | • IntelliFax 2800 | • HL-700 | • HL-760        | • MFC 4600/4650 | • MFC 7750      |
| • MFC-6800 | • IntelliFax 2900 | • HL-720 | • MFC 4300/4350 | • MFC 6550/6650 | • MFC 9050/9060 |
| • DCP-1000 | • IntelliFax 3800 | • HL-730 | • MFC 4450/4550 | • MFC 7550/7650 | • MFC 9500/9550 |

### The Brother DR-250 cartridge fits in these Brother MFC's and fax machines.

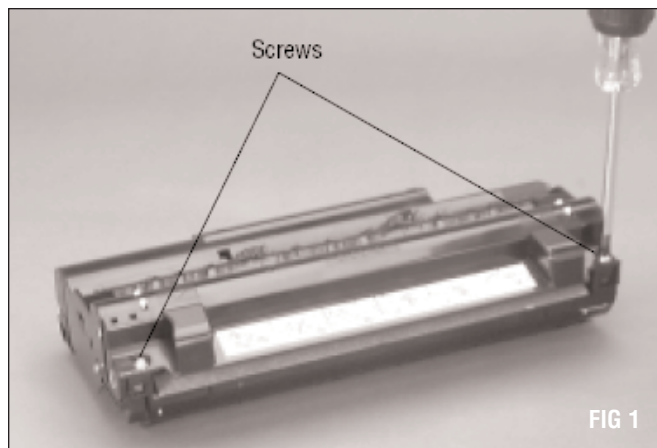
- |             |              |              |            |                   |            |
|-------------|--------------|--------------|------------|-------------------|------------|
| • FAX-8000P | • MFC-4600   | • MFC-7650   | • HL-730DX | • DCP-1000        | • FAX-2900 |
| • FAX-8200P | • MFC-4650MC | • MFC-7750MC | • HL-760   | • MFC-6800        | • FAX-3800 |
| • FAX-8250P | • MFC-4650ML | • MFC-7750ML | • HL-760+  | • MFC-4800        |            |
| • FAX-8260P | • MFC-4660   | • MFC-9000   | • PPF-2750 | • IntelliFax 2800 |            |
| • MFC-4350  | • MFC-6550   | • HL-720     | • PPF-3550 | • IntelliFax 2900 |            |
| • MFC-4450  | • MFC-9500   | • HL-730     | • PPF-3650 | • IntelliFax 3800 |            |
| • MFC-4550  | • MFC-7550   | • HL-730+    | • PPF-3750 | • FAX-2800        |            |

### The Brother DR-300 cartridge fits in the following printers and MFC's.

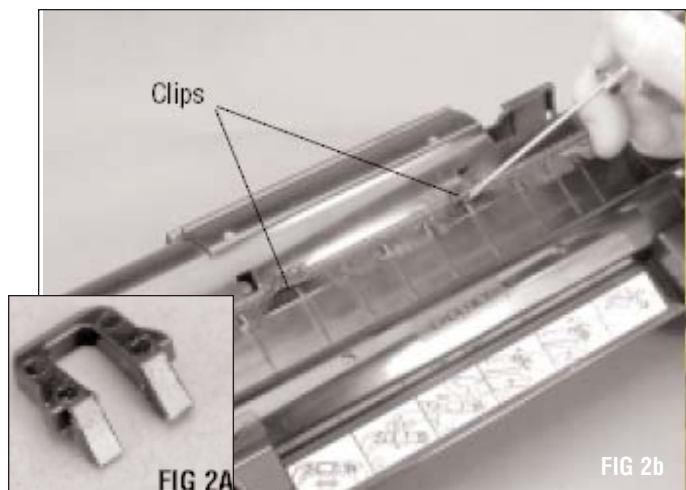
- |            |            |
|------------|------------|
| • HL-1040  | • HL-820   |
| • HL-1050  | • HL-1070  |
| • HL-1060  | • HL-P2000 |
| • MFC-2000 |            |

# Disassembly of the Drum Section

1. Use a Phillips screwdriver and remove the two screws located on the top side of the cartridge opposite the toner section (FIG 1).

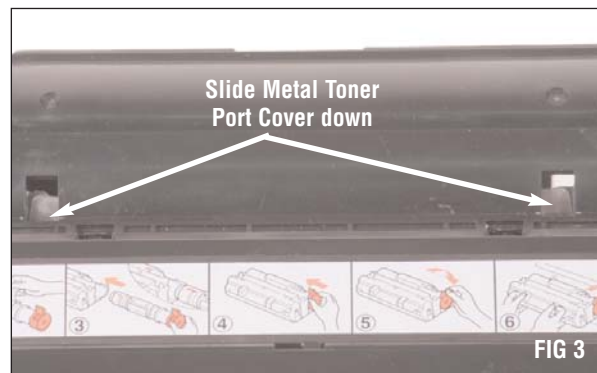


2. Remove the two small clips in the center of the cartridge (underneath the static brush in the Dr-200 model). Use a small flat head screwdriver, pry up to remove the two clips (FIG 2a and 2b).

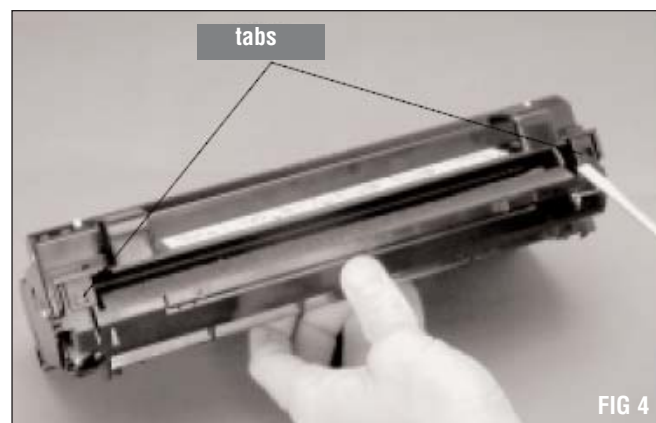


**Note:** In steps 3-6 be careful not to break or damage the locking tabs.

3. Using a small flat blade screwdriver slide the metal Toner Port Cover down, until it can not be seen through the openings (FIG 3).



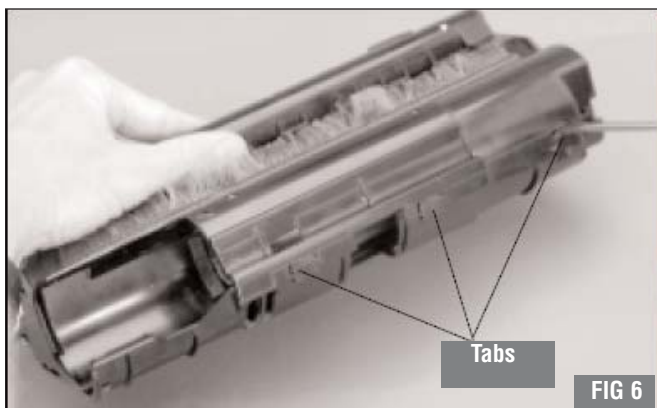
4. Release the two locking tabs located just below the location where the Phillips screws were removed (FIG 4).



5. Release the locking tabs on each end of the cartridge (FIG 5).



6. Release the three locking tabs along the front of the toner section while pulling up on the top cover (FIG 6). Remove the top cover and set aside.



7. Lift and remove the white agitator gear from the cartridge (FIG 7).



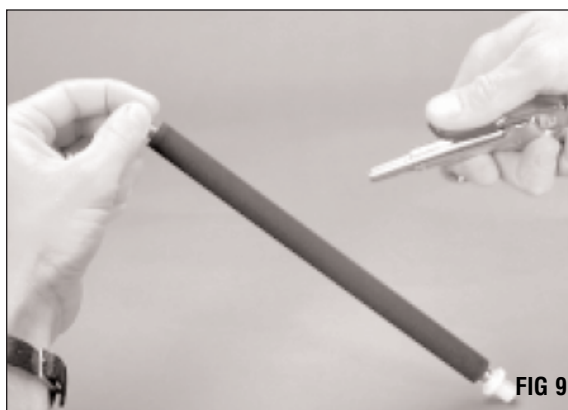
8. Lift and remove the Transfer Roller, and transfer roller saddle (FIG 8a and 8b). Be careful not to touch the surface of the transfer roller.



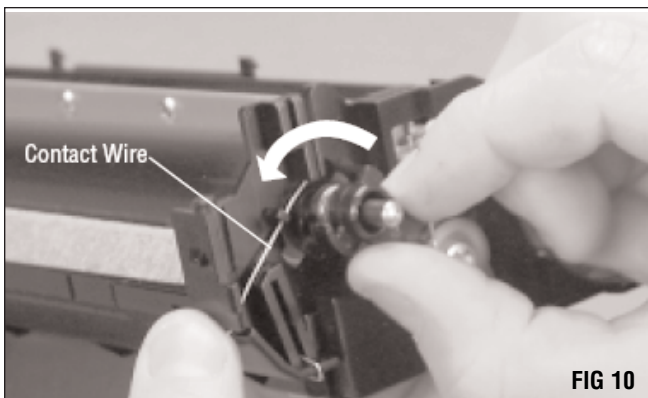
**Note:** Some cartridges do not have saddles. Also see the note on page 11 regarding the transfer gear.



9. Clean the transfer roller with dry, filtered compressed air or lightly vacuum (FIG 9).



10. Turn the drum axle retaining clip counter-clockwise and remove (FIG 10). Remove the contact wire.



**IMPORTANT** Note the position of the transfer roller contact wire. The drum axle retaining clip holds it in place.

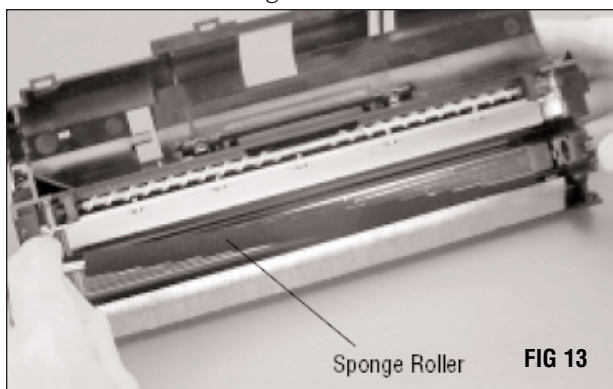
11. Slide out the Drum Axle (FIG 11).



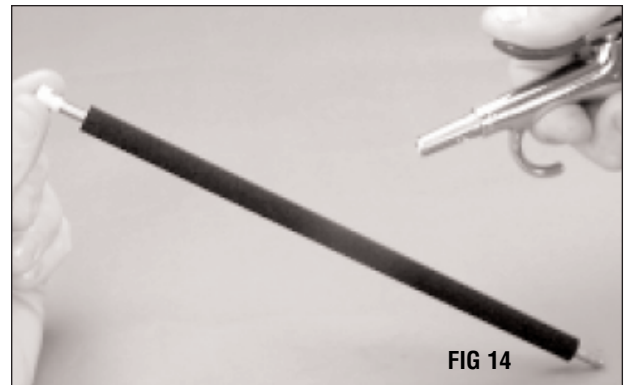
12. Lift the drum from the cartridge (FIG 12).



13. The cartridge does not have a wiper blade, but has a charged sponge roller to clean waste toner from the drum (FIG 13). Remove the sponge roller from the cartridge.



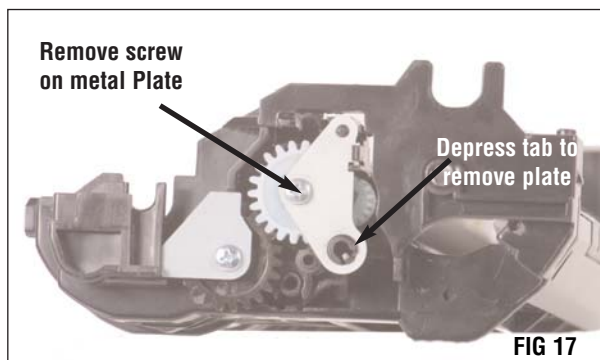
14. Clean the sponge roller with dry filtered compressed air (FIG 14).



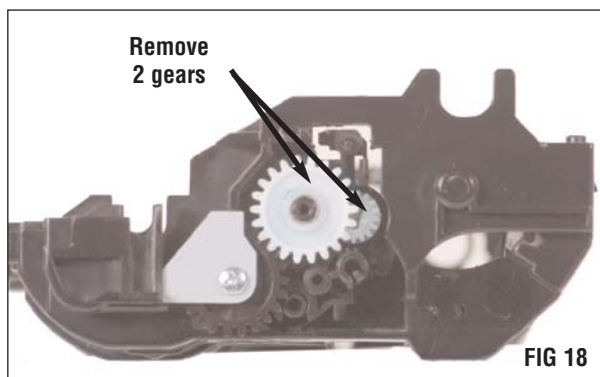
15. Clean the remaining portion of the drum unit with dry, filtered compressed air (FIG 15).



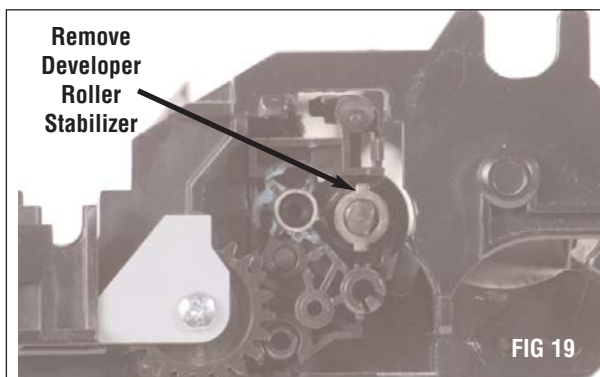
16. Remove the screw securing the metal plate on the geared side of the cartridge (FIG 17). To remove plate, tab must be depressed.



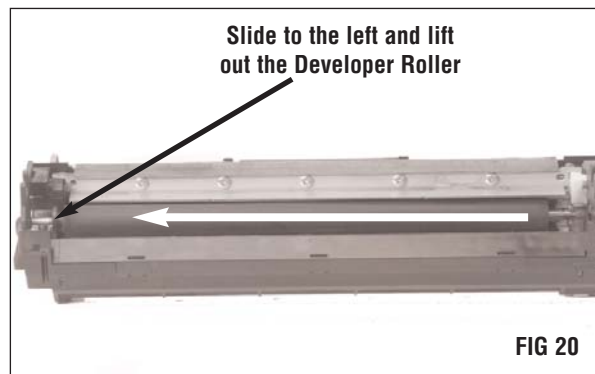
17. Remove the large white gear in the front and the Developer Roller Drive Gear (FIG 18).



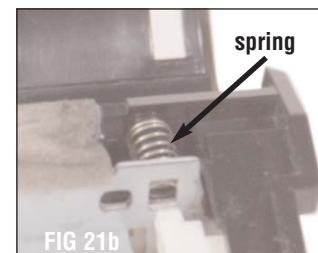
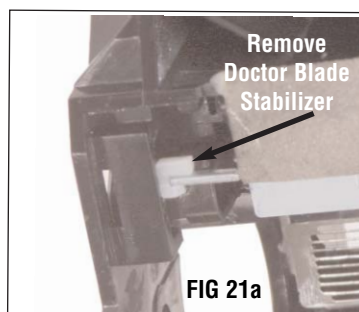
18. Remove the Developer Roller Stabilizer from the cartridge (FIG 19).



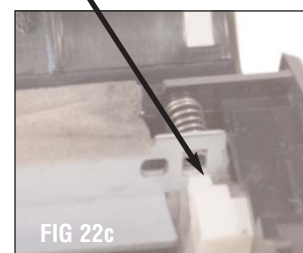
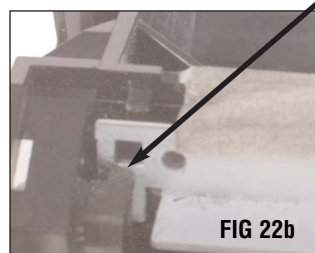
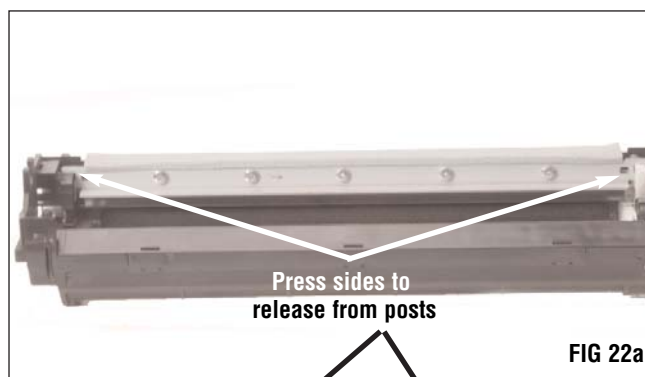
19. Carefully lift the Developer Roller from the cartridge (FIG 20). Be careful not to lose the spring and bushing on the end of the Developer Roller.



20. Remove the Doctor Blade Stabilizer, and the Doctor Blade Tension Spring (FIG 21a and b).

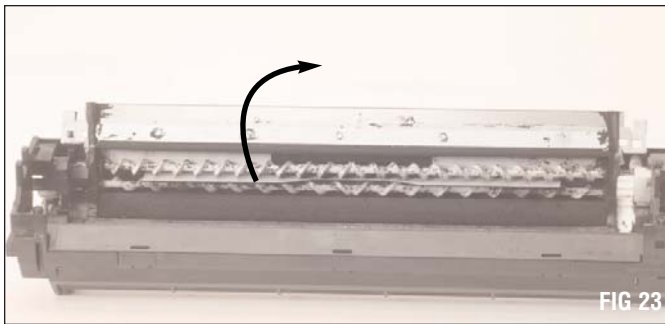


21. Press the sides of the Doctor Blade to release it from the posts, one on each side (FIG 22a, b and c).



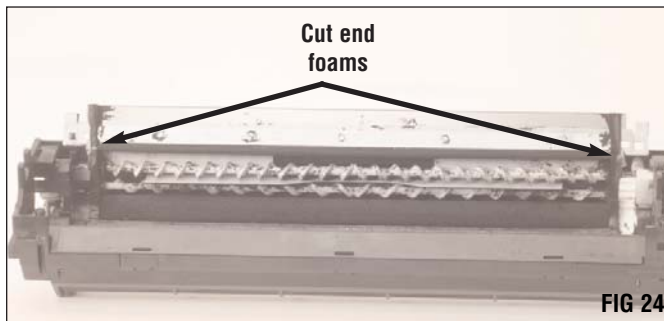


22. Rotate the Doctor Blade upward and clean with dry, filtered compressed air (FIG 23).



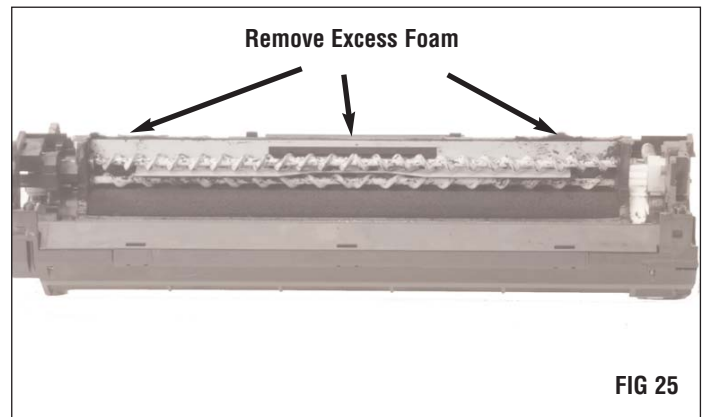
**Note:** The following steps are for removing/replacing the doctor blade. If not removing/replacing the doctor blade please skip to Steps 1 on Page 9.

23. With the doctor blade rotated up cut the Doctor Blade End foam at each end of the Doctor Blade (FIG 24). Pull the doctor blade from the cartridge tearing away as much of the Doctor Blade Sealing foam as possible.

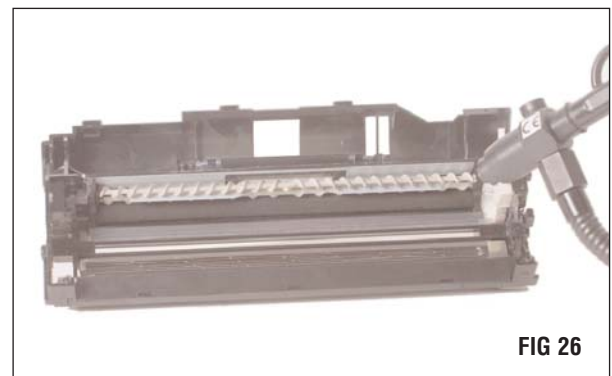


**Note:** The Doctor Blade Sealing Foam in the Brother® DR-200 is mounted on the top cover of the drum unit and will not need to be torn off the cartridge with the doctor blade.

24. Be sure to remove any remaining foam from the mounting surface of the Doctor Blade Sealing Foam (FIG 25).

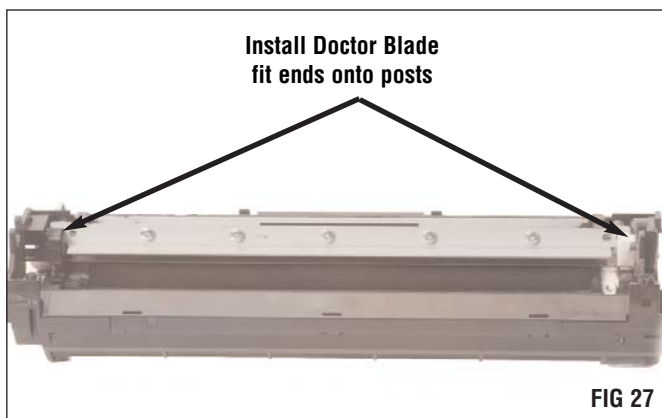


25. Clean the excess toner from the cartridge using dry, filtered compressed air (FIG 26). Vacuum any toner build-up from the Adder Roller.

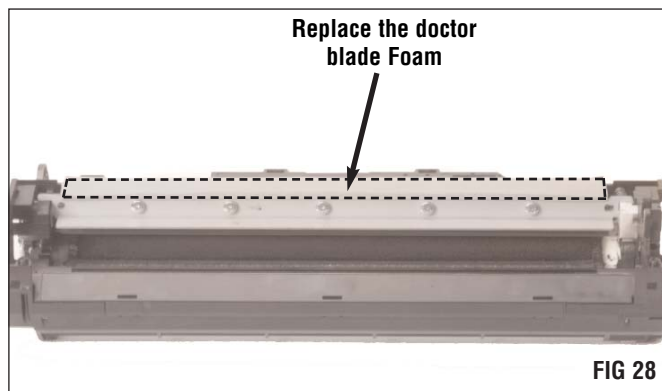


# Reassembly of the Drum Section

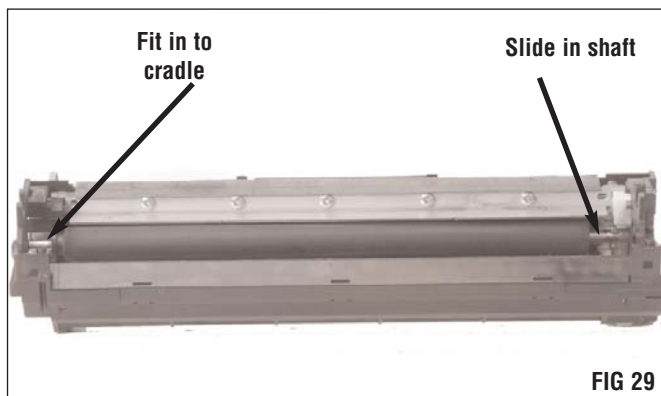
1. Fit the new Doctor Blade into the cartridge, be sure to fit the Doctor Blade onto the posts on each end (FIG 27).



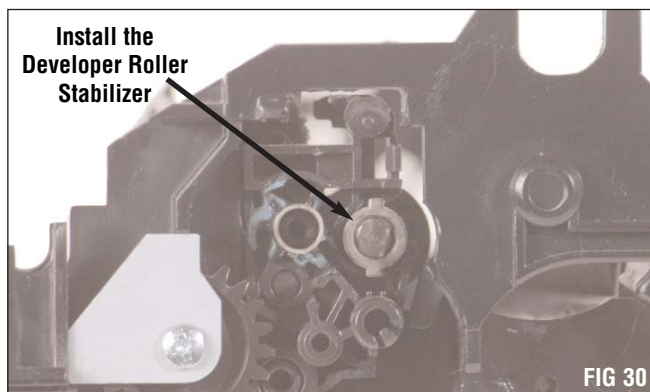
2. (Brother® DR-250/DR-300 only) Peel the backing from the replacement Doctor Blade Sealing foam and install on top of the Doctor Blade. Press down along the mounting surfaces to activate the adhesive (FIG 28).



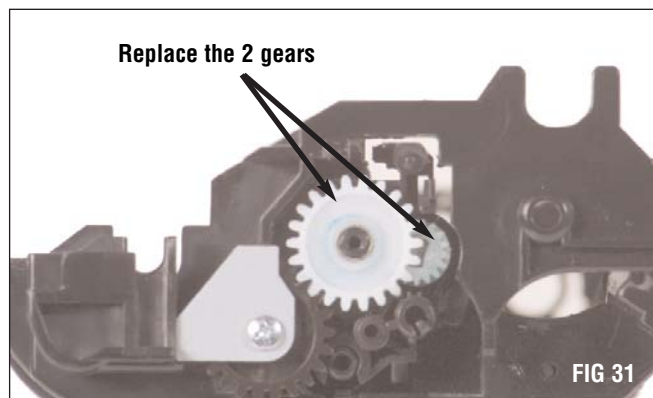
3. Install the Developer Roller (FIG 29).



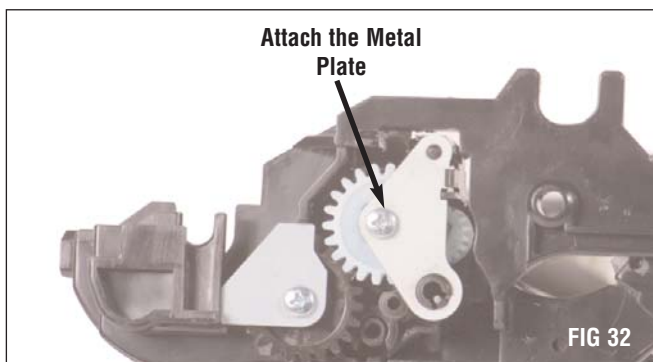
4. Install the Developer Roller Stabilizer (FIG 30).



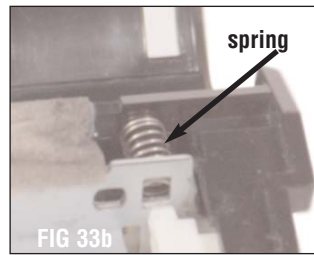
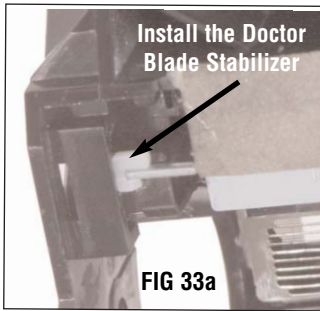
5. Replace the two gears (FIG 31).



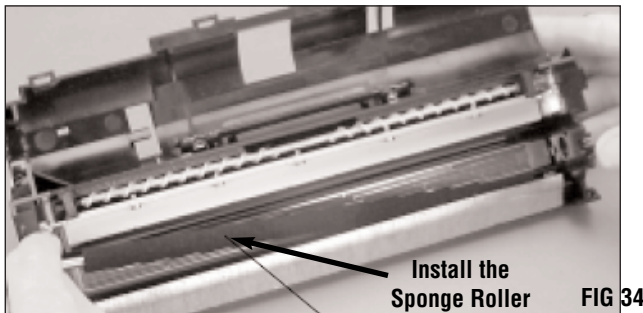
6. Attach the metal plate and secure with one screw (FIG 32).



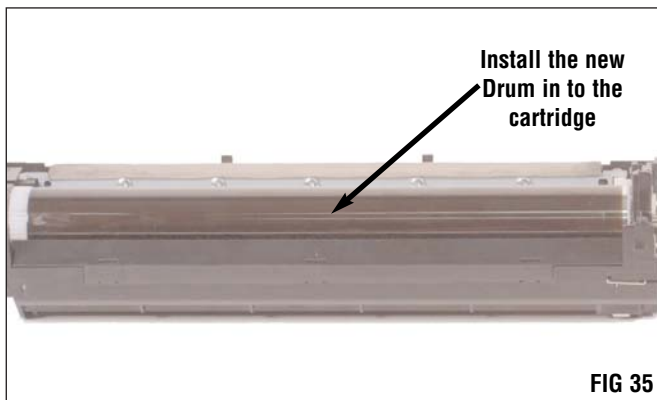
7. Install the Doctor Blade Stabilizer, and the Doctor Blade Tension Spring (FIG 33).



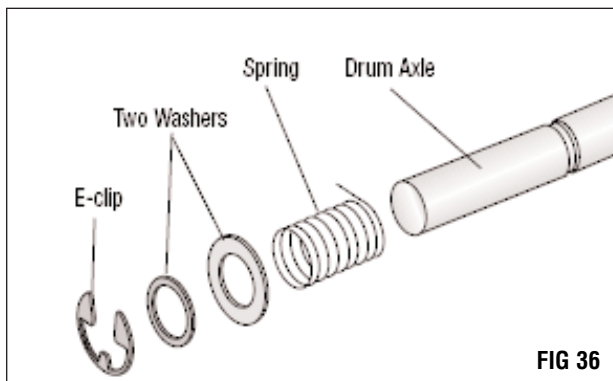
8. Install the Sponge Roller in to the cartridge (FIG 34).



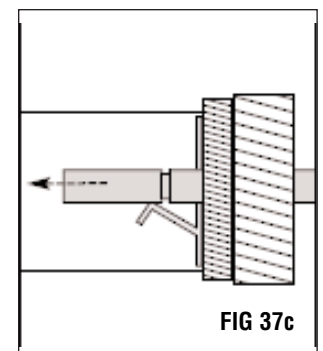
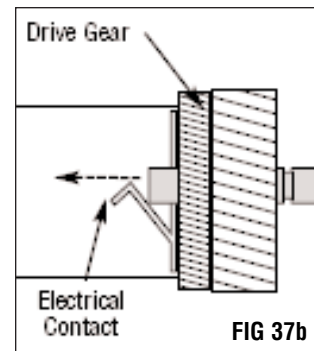
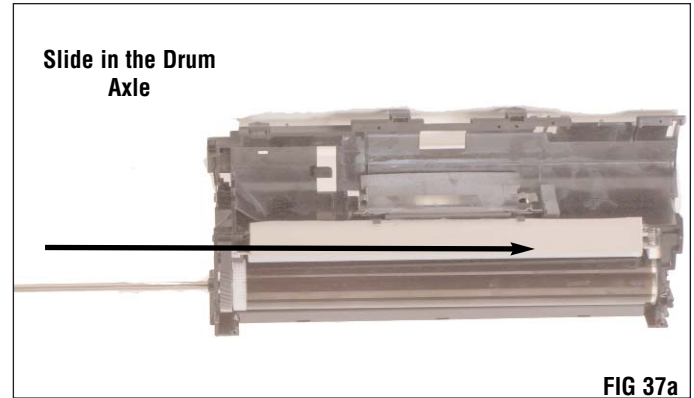
8. Install the Drum in to the cartridge (FIG 35).



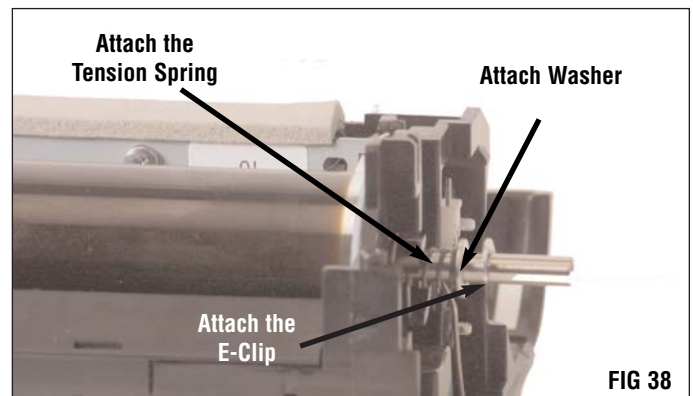
9. Remove the E-Clip and the spring and Washer from the Drum Axle (FIG 36).



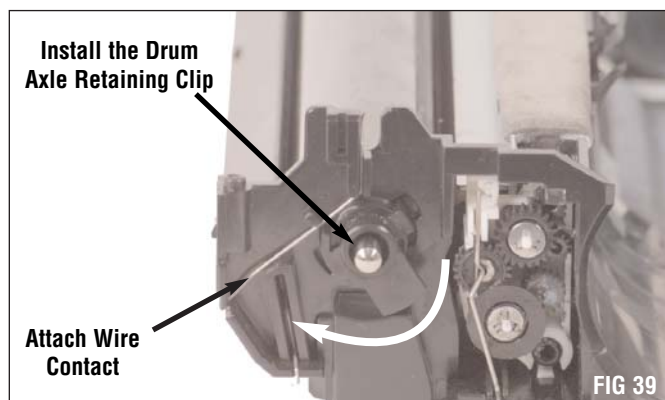
10. Slide in the Drum Axle on the opposite side from which it was removed so that the drum contact is not damaged (FIG 37).



11. Attach the Tension Spring, Washer, and E-Clip to the Drum Axle (FIG 38).



- Attach the Wire Contact, Drum Axle Stabilizer and rotate in to place (FIG 39). Be sure Transfer Roller Contact Spring is still in place.

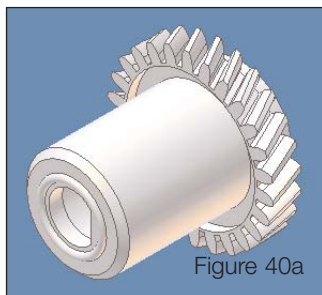


**Note:** SCC offers two different gear types as shown in Figure 39a and 39b.

These gears are used to make the one cycle cores that have spur style gears compatible with the SCC drum. The gear that is needed depends on the transfer roller shaft that is in the cartridge. For example, if the cartridge that is being remanufactured has a narrow transfer roller shaft it should be replaced with the SCC narrow transfer roller gear.

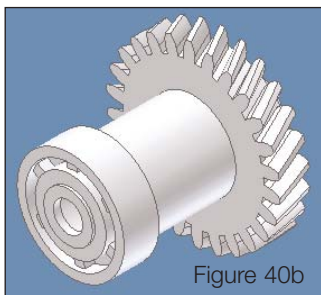
**Note:** These helical transfer roller gears can **only** be used for SCC drums. Refer to remanufacturing instructions SSS™ #819 for further information on installation.

Wide Base Gear



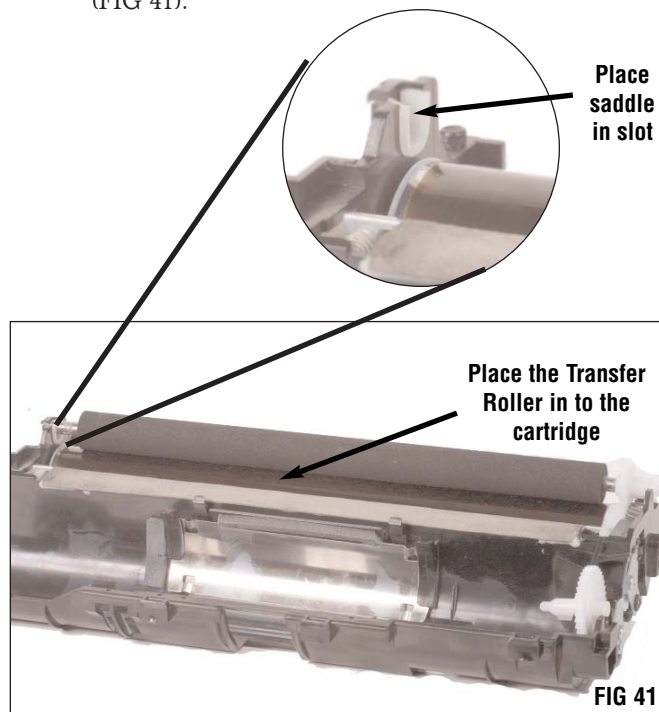
B4800TRGR-W

Narrow Base Gear

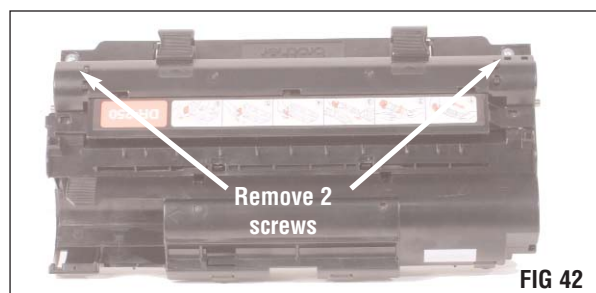


B4800TRGR-N

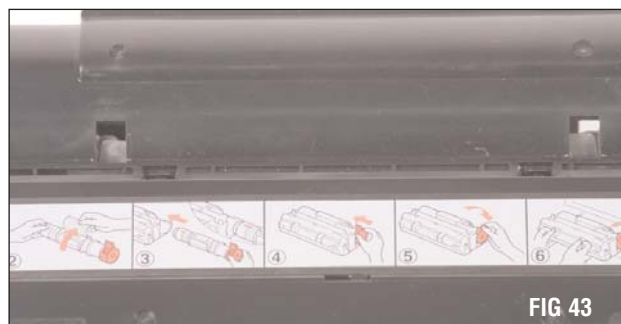
- Place the Transfer Roller saddle in to the slot and place the Transfer Roller in to the cartridge (FIG 41).



- Replace the cover and press down to lock tabs, then secure with 2 screws (FIG 42).



- Push the Metal Toner Port Cover back in to place so it is visible through the openings on the top of the cartridge (FIG 43).



# Technology and Support You Can Rely On!

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*We realize that the success of your business directly affects the success of Static Control. It's no longer a matter of keeping up with your competition, but surpassing them. That is why we invest so much time and effort in the technology necessary for your business to address new market opportunities quickly, and with confidence.*

*Where monochrome once ruled the industry color is now emerging and taking a foothold. It is our pledge to you, our customer, to do all we can to help you move into this new opportunity and others, as quickly and effortlessly as possible. We will continue to support monochrome markets, while building a comprehensive color technology library for your reference, along with products to support your growing business. Together we can build a partnership for a successful future.*



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