

TECHNICAL DOCUMENT



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Sharp AR-160 OPC Cartridges

DOC-0270

OVERVIEW



The Sharp AR-200 Drum cartridges are used in the Sharp AR-160/161/200 and 205 printer/copier/fax machines. These machines are 16-20ppm digital copiers that can print on a maximum size of 11" x 17" paper. The cartridge is rated for 18,000 pages. List price for the Ar-200TD is \$132.00.

As with the associated AR-160 toner cartridge, these cartridges are unique in that they are designed to be recycled by Sharp technicians. Sharp sells a re-manufacturing kit which consists of a new drum, drum axle lock or "fixing plate" as they call it, and a new wiper blade to their authorized dealers so that they can rebuild them. Sharp information states that these cartridges can be rebuilt five times before the cartridge should be thrown out. We are continuing to test to see if they will last longer.

Another profitable cartridge with no worry about the OEM manufacturer de-engineering it! (The toner cartridge for these machines was the first).

This procedure should be read in it's entirety before proceeding with the actual recycling process.

TOOLS REQUIRED



- Phillips head screw driver
- Needle Nose Pliers
- Vacuum approved for toner removal
- Safety goggles and breathing mask

WARNING: Always wear safety goggles and breathing mask when working with or around toner. Do not disperse the toner into the air. Use approved toner vacuums and filters at all times.

SUPPLIES NEEDED



- New OPC Drum with Axle lock or "Fixing Plate"
- New Wiper Blade

- Small tube of white lithium grease (Available from any local hardware store).

DISASSEMBLY



1. Inspect the cartridge for any damage, especially look for damage or cracks on the boss and the boss hole. Check to insure that the waste toner pipe shutter slides smoothly, and that the small and large metal star wheels rotate smoothly. See Diagrams #1 & 2
2. Remove the drum cover by pressing in on the 4 plastic tabs. Watch out for the small "Detection gear" located inside the cover as it will come loose. See Diagrams #3 & 4

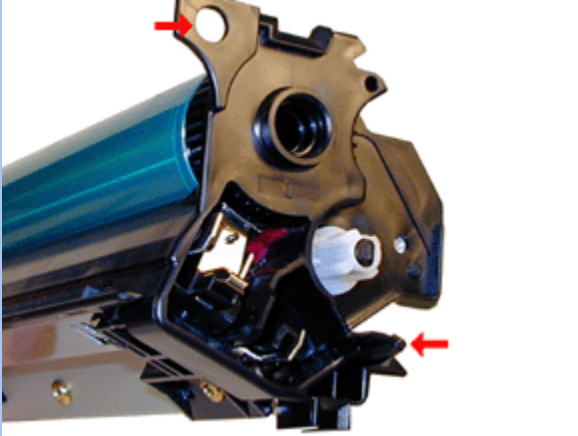


DIAGRAM 1

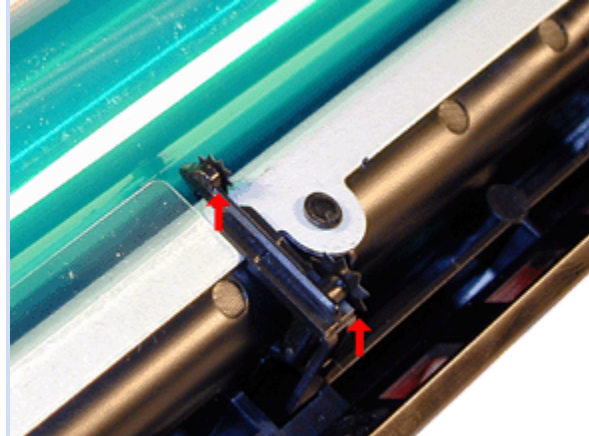


DIAGRAM 2

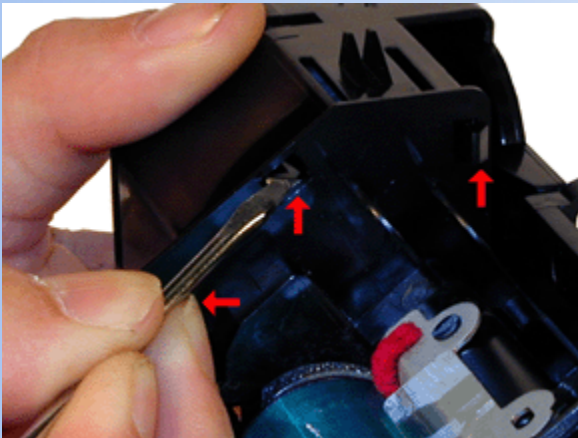


DIAGRAM 3

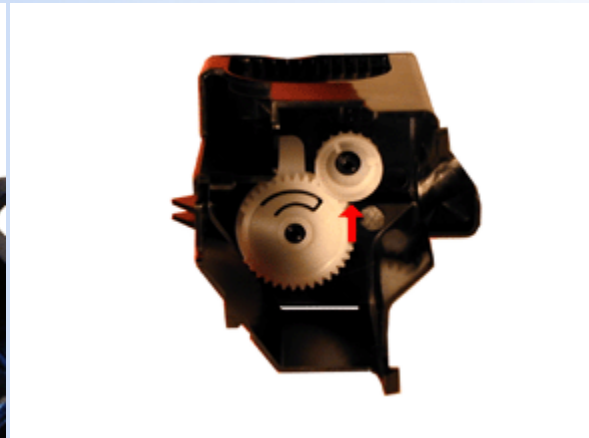


DIAGRAM 4

3. Remove the drum axle lock "fixing plate" by turning clockwise. Remove the axle and drum. It is not recommended that either of these parts be re-used. Both of them should be replaced with new parts. See Diagrams #5 & 6
4. Inspect the red felt around the wiper blade for no damage. Clean any residual toner and fluff up the felt. See Diagram #7



DIAGRAM 5



DIAGRAM 6

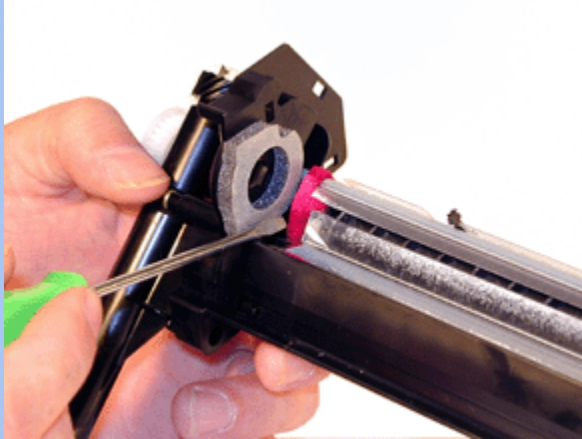


DIAGRAM 7

5. Remove the Primary Corona Assembly by removing the two large gold screws (left & right side). Gently slide the entire assembly over to the left. Locate the two plastic tabs, (Left and right side), and the center metal tab. Gently pry the assembly up and out at each of these three points. It is easiest to start on the non-contact side of the assembly and work to the right. See Diagrams #8, 9 & 10.

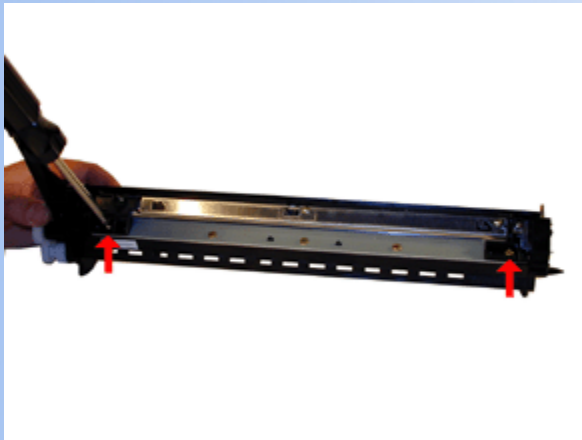


DIAGRAM 8



DIAGRAM 9

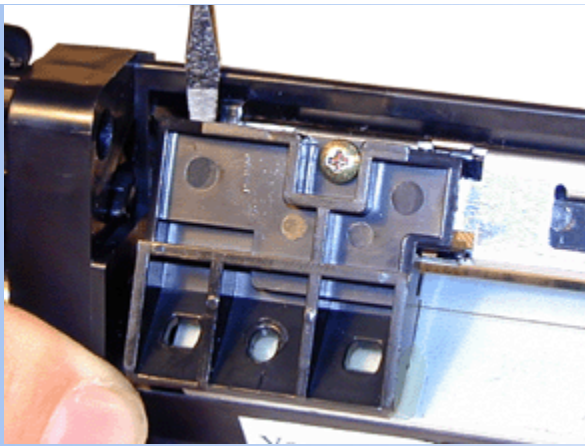


DIAGRAM 10

6. Remove the grid from the Corona Assembly by pressing in on the plastic tab of the contact side. Clean the saw tooth blade. Replace the Grid. See Diagrams #11 & 12.
7. Take out the Wiper Blade by removing the three screws, and prying the blade up.

NOTE: Carefully pry the plastic spacers off the old blade and install them on the new blade. If the adhesive has become contaminated with toner, clean them up with a little alcohol. Do not use too much or scrub too much as this will remove all the adhesive. Only clean it enough to re-activate the adhesive. See Diagrams #13 & 14

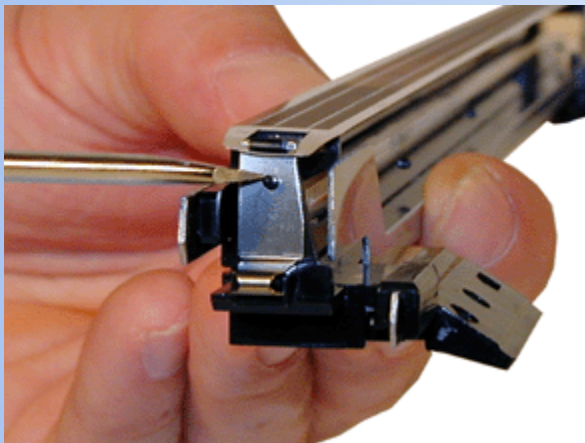


DIAGRAM 11

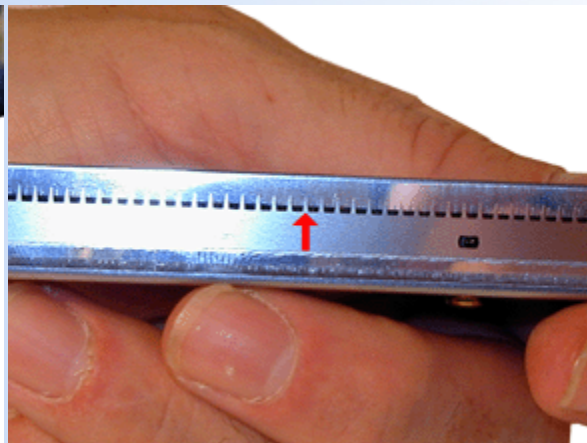


DIAGRAM 12

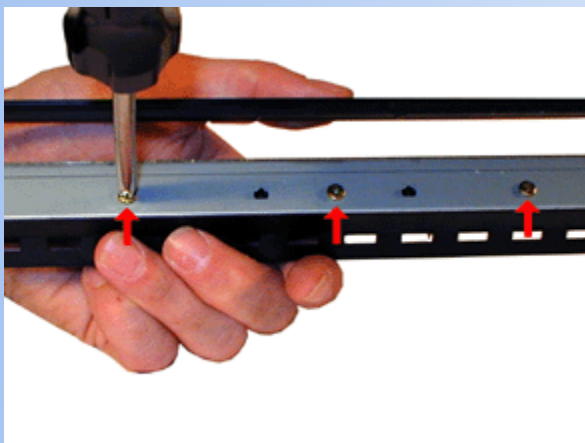


DIAGRAM 13



DIAGRAM 14

8. Clean the toner auger section and the waste toner pipe to remove waste toner completely with a vacuum cleaner. Make sure that all the gears and augers are clean and turn freely. See Diagram #15
9. Clean all the felt and foam seals. See Diagram #16

NOTE: Be careful not to damage the recovery blade.

10. Install the new Wiper Blade and three middle screws. If your blade is not pre-powdered, coat it lightly with Zinc Sterate. See Diagram #17

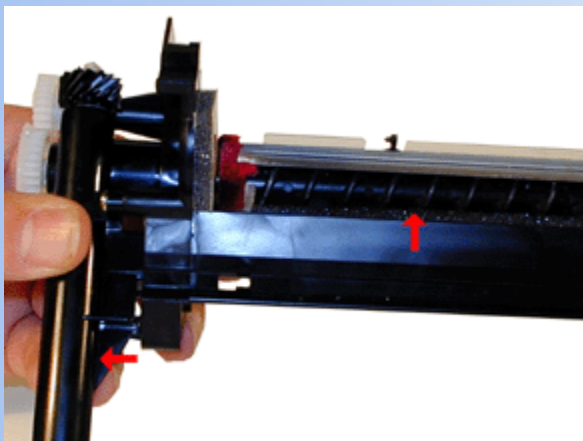


DIAGRAM 15

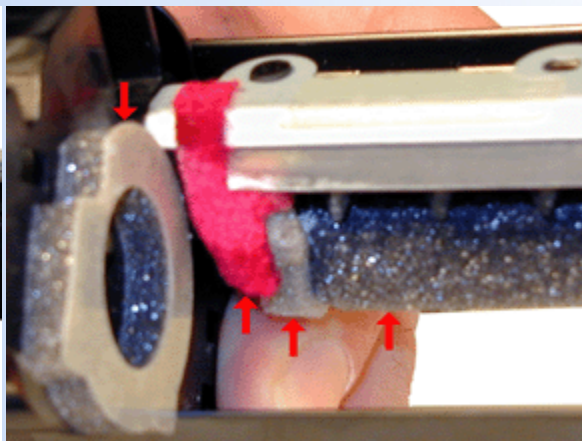


DIAGRAM 16

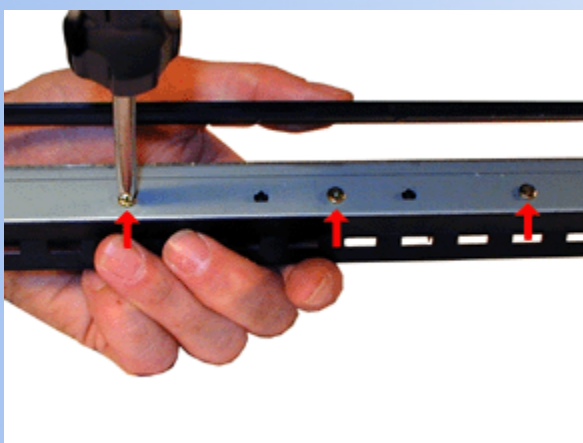


DIAGRAM 17

11. Install the cleaned Primary Corona Assembly by dropping it in right side first, but flush with the left edge, aligning the tabs with their slots, and sliding it over to the right. Install the two remaining gold screws. See Diagrams #18 & 19.
12. Place a small amount of grease to the inside of the non-contact gear on the OPC drum, and the Drum Axle Lock. Install the drum, and the Axle. Turn the Axle counter clock wise to lock in place. (The locking direction is embossed in the plastic). See Diagrams #20 & 21



DIAGRAM 18



DIAGRAM 19



DIAGRAM 20



DIAGRAM 21

13. Install the detection gear inside the drum cover. Set both the gears so that their position are as indicated. This will reset the copier when installed. See Diagram #22.
14. Attach the drum cover. As the detection gear comes loose easily, it is best to hold the drum cover and place the cartridge down into it. This will prevent the gears from moving. See Diagram #23.

NOTE: If you are going to test the cartridge, you will have to remove the drum cover and reset the gears afterwards.



DIAGRAM 22

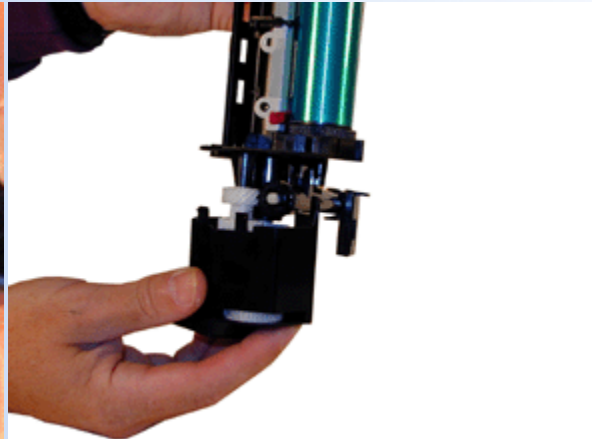


DIAGRAM 23

15. Mark the number of times of recycling on the side of the cover with white paint. As stated above Sharp states that these cartridges should only be rebuilt 5 times. We are continuing to test them to see if they will last longer than that.

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RECOMMENDED SUPPLIES



Microsoft OLE DB Provider for ODBC Drivers error '80004005'

[Microsoft][ODBC Microsoft Access Driver]General error Unable to open registry key 'Temporary (volatile) Jet DSN for process 0x698 Thread 0x1164 DBC 0x97a4444 Jet'.

/script/catSearch.asp, line 58