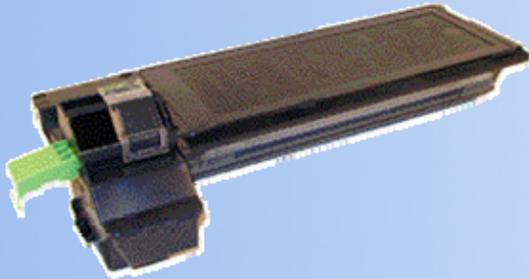


TECHNICAL DOCUMENT

- [Overview](#)
- [Required Tools](#)
- [Required Supplies](#)
- [Disassembly \(Toner Unit\)](#)
- [Disassembly \(Developer Unit\)](#)
- [Developer Reset](#)
- [Trouble Shooting](#)
- [Recommended Supplies](#)



Sharp AR-152 Toner / Developer Cartridges

DOC-0291

OVERVIEW



First released in January 2001, the Sharp AR-152 Engine is an 8 to 15 ppm digital copier engine that runs at 600 dpi. Unlike all other small Sharp copiers, the toner cartridge is separate from the developer unit. The toner unit has a chip in it that must be replaced. The developer unit and the drum units are not user replaceable. According to Sharp, they must be replaced/rebuilt by sharp technicians. These instructions cover the toner and developer units, the drum unit will be covered in a later article.

Both the toner unit and the developer units are very easy to rebuild. Since the toner unit is user replaceable, extra used toner cartridges will be available. The developer units however, will need to be rebuilt in the field. Sharp sells the developer in 170g bags just for that purpose. New developer units are not readily available even through Sharp dealers.

The toner unit when new comes with a tape seal across the long toner slot and a plastic seal in the waste hopper, (See Figures 1 & 2). The plastic seal across the waste chamber is useless when the cartridge is new, it only applies after the cartridge has been used and there is toner in the waste chamber. Curiously, there are no notes anywhere with the cartridge for the user to save the seal and use it to prevent spillage after the cartridge has been removed from the machine. For remanufacturing purposes, if the customer kept the seal and you want to use it, go ahead, if it is not there, don't worry about it. The tape seal for the toner is also not necessary if you are going to hand deliver the cartridge. We are currently working on a Tape/foam seal for shipping purposes.

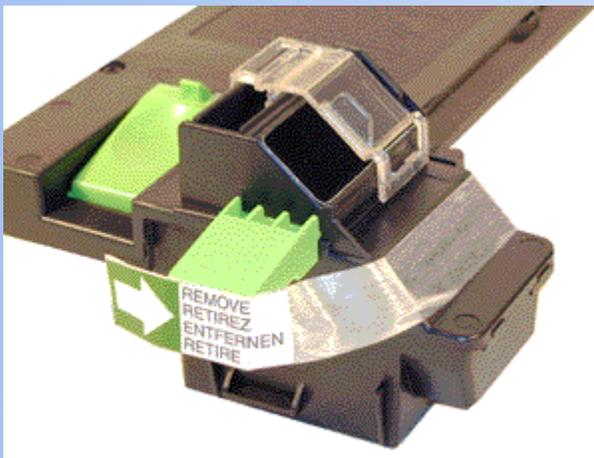


FIGURE 1



FIGURE 2

Machine troubleshooting/error codes as well as the developer reset are covered at the end of this article.

Current Machines based on the AR-152 engine are:

- AR-151
- AR-152
- AR-152F
- AR-156

REQUIRED TOOLS

- Phillips head screwdriver
- Small common screw driver
- Safety goggles and breathing mask
- Vacuum approved for toner

REQUIRED SUPPLIES

- 210g toner
- 170g developer
- Reset chip for the toner cartridge

DISASSEMBLY (TONER UNIT)

1. Remove the three screws located on the top of the cartridge by the green handle. See Figure # 3.
2. Lift the cover up from the handle side, slide the cover away from you, & remove. See Figure # 4

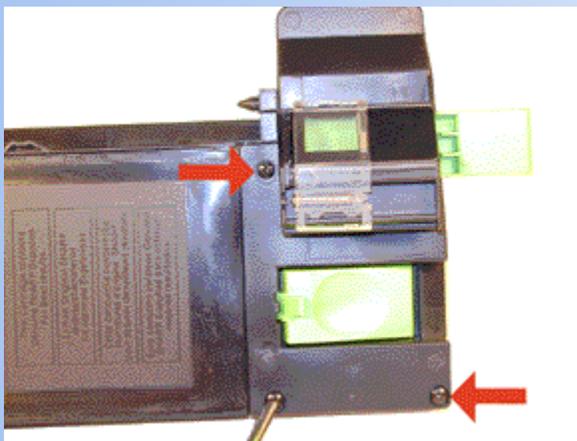


FIGURE 3



FIGURE 4

3. Vacuum/blow out the waste chamber clean.
4. From below the waste chamber, remove the toner fill plug. See Figure # 5
5. Vacuum/blow out the toner supply chamber clean. Make sure that you also clean the long slit behind the spring loaded cover where the toner is fed into the developer section. See Figure # 6.



FIGURE 5

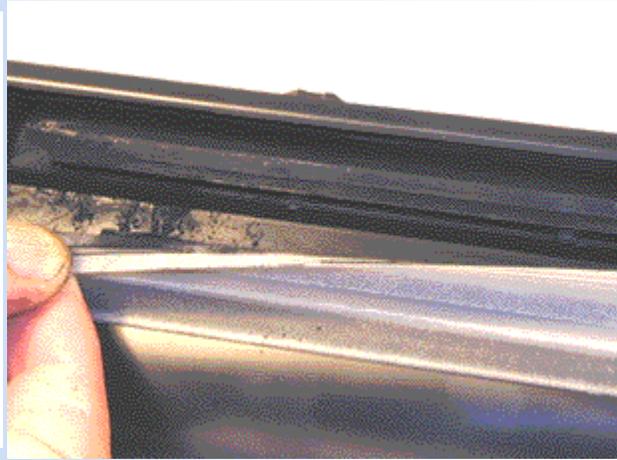


FIGURE 6

6. Remove the two screws and the old chip from the cartridge. See Figure # 7
7. Install the new chip and two screws. See Figure # 8.

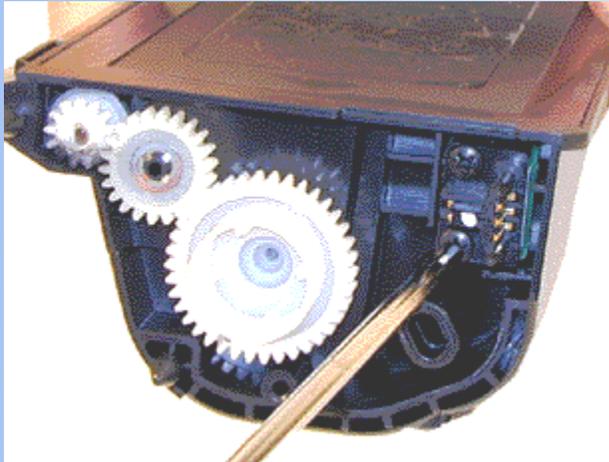


FIGURE 7

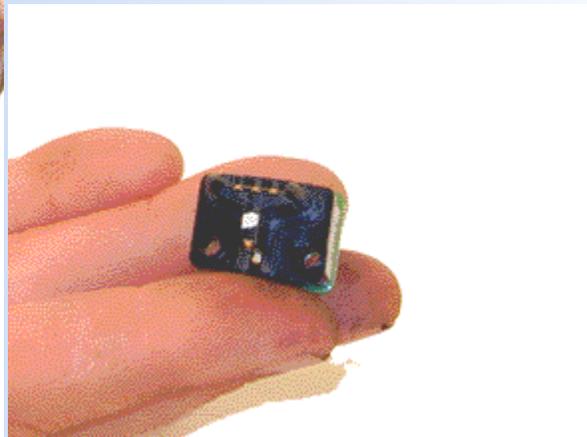


FIGURE 8

8. Take the top cover and align the tabs and pins. See Figure # 9.
9. Install the three screws. See Figure # 10.

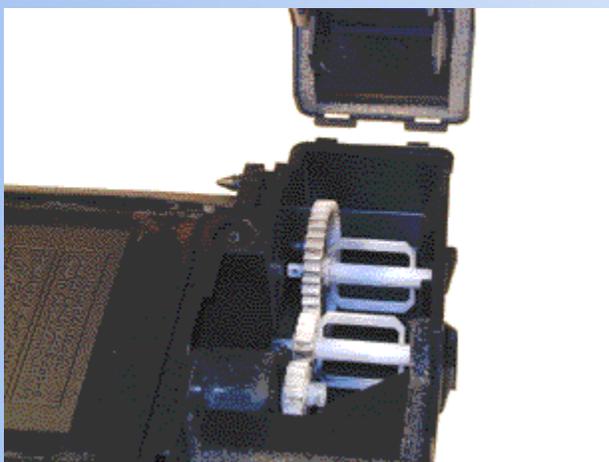


FIGURE 9

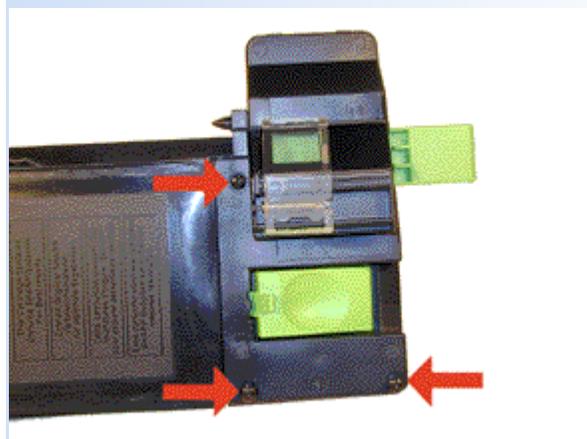


FIGURE 10

10. Check to see that the spring loaded cover moves freely. See Figure # 11.
11. Fill with AR-152 toner. See Figure # 12.

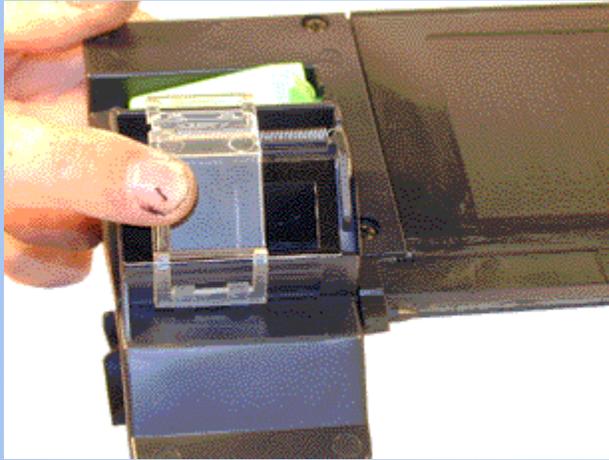


FIGURE 11



FIGURE 12

12. Replace the Fill Plug, check for leaks.

DISASSEMBLY (DEVELOPER UNIT)



1. Open the front and right side covers on the copier. Remove the large screw at the base of the developer unit. Carefully remove the developer unit. See Figure # 13
2. The developer unit consists of two halves, the upper and lower. Remove the single screw from the upper half. See Figure # 14

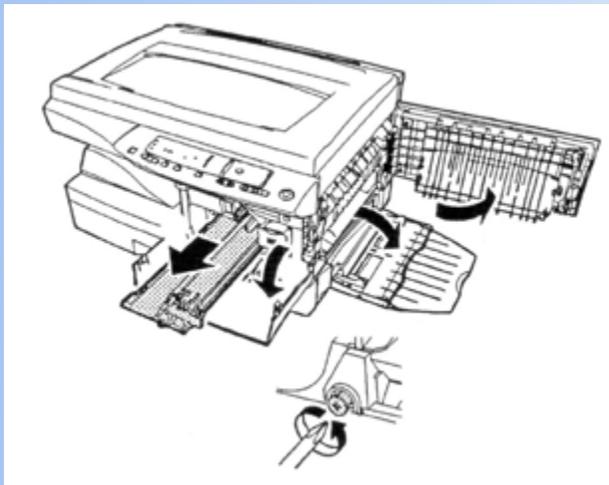


FIGURE 13

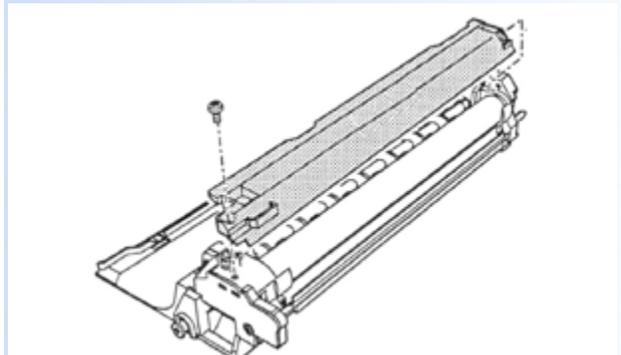


FIGURE 14

3. Carefully dump out all the old developer into an empty garbage bag, vacuum the unit clean. (I recommend that you double up on the bags in case one leaks.)
4. Carefully pour the new developer across the feed auger in the lower unit. Be careful not to spill any outside the unit. See Figure # 15
5. Reinstall the upper unit and screw.

6. Rotate the developer drive gear in the direction indicated to distribute the developer evenly. See Figure # 16



FIGURE 15

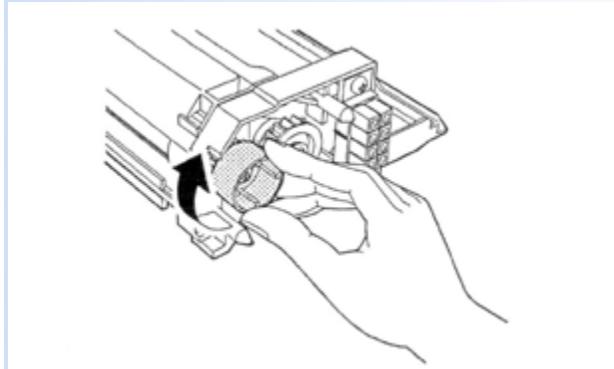


FIGURE 16

7. Reinstall the developer unit, and lock in place with the large screw.

All the parts are available from Sharp for the developer cartridge. Strangely, no part number is listed for the entire developer unit.

The developer is rated for 25,000 pages. The default setting on the machine is to keep running even after the 25K pages. That default setting can be set by the dealer to stop at 25K pages. It is considered a dealer option.

DEVELOPER RESET



1. To clear the developer after a stop, or to reset the counter, simulation 24-06 must be run.
2. To enter the simulation mode, press the "CLEAR KEY", EXPOSURE SELECT KEY", "CLEAR KEY", EXPOSURE SELECT KEY".
3. Press 24
4. Press 06
5. Press "PRINT" The developer count is now cleared.

TROUBLE SHOOTING



A Circle with dots around it signals that the developer needs to be changed

"CH" Blinking: No toner cartridge installed

"CH" on steady: Side door open

Toner light on steady: Toner Cartridge should be changed soon

Toner light flashing: Toner Cartridge must be changed now.

The Machine codes as listed in the service manual, are not all that helpful for normal problems (Paper jams are not listed at all) I have listed the code categories generally just as an aid. One interesting code is "F2", this is a cartridge type error. Since Sharp is no longer making machines for Xerox, There must be another manufacturer they are planning to work with down the line.

E Codes: Seem to all be circuit board errors.

L Codes: Motor/Mirror problems

H Codes: Fuser Problems

U codes: EEPROM Errors

F Codes: Except for F2 explained above, Fax communication errors

Checking the toner cartridge life left:

To see how much life is left in the toner cartridge, Press and hold the "LIGHT" and "DARK" keys simultaneously for approximately 5 seconds, or until all the lights flash, and two dashes appear in the display.

Press and hold down the copy ratio display "%" for 5 seconds. The approximate amount of toner left in the cartridge will display as a percentage "100", "75", "50", "25", or "10". When less than 10% is left, "LO" will be displayed.

Press either the "LIGHT" or "DARK" key, all the flashing lights will go out.

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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 0xedc DBC 0x97a448c Jet'.

/script/catSearch.asp, line 58