



ML1210

Technical Instructions	Machine Compatibility	OEM Info	Tools	1
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Machine	Part #:
ML-1010	P/N ML1210D3
ML-1020	P/N ML1210D3
ML-1220	P/N ML1210D3
ML-1210	P/N ML1210D3
ML-1250	P/N ML1210D3
ML-1430	P/N ML1210D3
ML-4500	P/N ML4500D3
ML-4600	P/N ML4500D3
Lexmark E210	P/N 10S0150

OEM Gram Load: 65 grams
Yield @ 5%: 2,500 pgs
Pages/Min.: 12
Resolution: 300/600 max

Phillips Screwdriver
Small flat blade Screwdriver
Supplies Required:
Cotton Swab
99% Alcohol
Replacement Drum

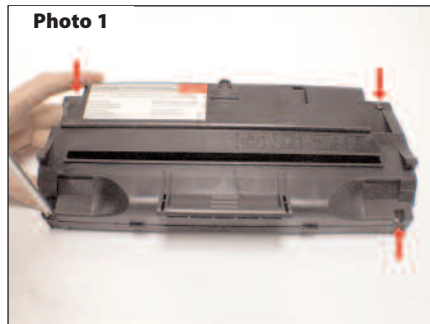


Photo 1

Step 1

Using a Philips screwdriver, remove the four cartridge screws from the top corners of the cartridge.

(See Photo 1)



Photo 2

Step 2

Locate the fifth screw located in the center of the cartridge on the waste hopper side. (See Photo 2) If the cartridge being remanufactured is a starter cartridge, this will be a regular Philips style screw. However if the cartridge is a replacement cartridge, a security screw is used instead of a Philips screw.



Photo 3

Step 3

To remove the security screw, cut the thin wall that surrounds the screw.

(See Photo 3)

Photo 4



Step 4

Using either diagonal cutters or needle nose pliers, grab the head of the screw and twist.

(See Photo 4)

Photo 5



Photo 6



Step 5

Find the four locking tabs that hold the two halves of the cartridge together.

(See Photo 5)

To release the tabs, insert a small flat blade screwdriver into the tabs and carefully pry them apart. (See Photo 6)

Notes

Photo 7



Step 6

Lift the top cover up away from the cartridge. (See Photo 7) Clean the cover using dry compressed air or a vacuum.

Photo 8



NOTE: On some older cartridges, a metal plate covers the PCR and drum. Remove the two screws that hold the metal cover in place. (See Photo 8) Remove the cover.

Photo 9



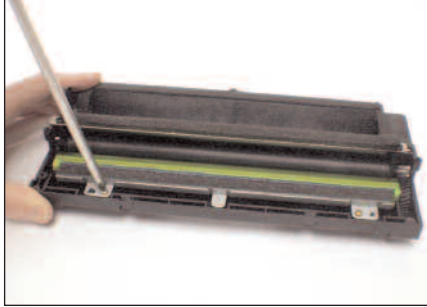
Step 7

Using A Philips screwdriver, remove the three screws holding the cartridge end cap.

(See Photo 9)

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Photo 15

**Step 13**

Remove the two screws holding the wiper blade assembly. (See Photo 15) Lift the wiper blade assembly from the cartridge.

Photo 16



Photo 17

**Step 14**

Push up the drum drive gear from the bottom of the cartridge. (See Photo 16) Carefully lift the drum from the cartridge. (See Photo 17) **NOTE:** If you are going to reuse the drum, clean the drum using a dry lint free cloth and place the drum in a protected area away from the light.

Step 15

Dump the toner from the toner hopper. Using dry compressed air or a vacuum, clean the toner from the toner hopper.

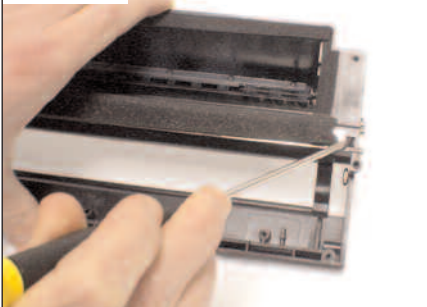
Notes

Photo 18

**Step 16**

Using a small flat blade screwdriver, release the two locking tabs that hold the developer roller end cap to the side of the hopper. (See Photo 18 & 19)

Photo 19

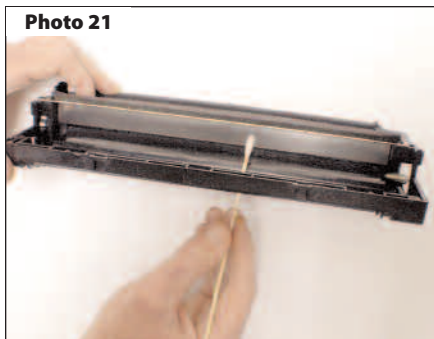
**Step 17**

Slide the developer roller out from the side of the cartridge. (See Photo 20)

Clean the developer roller using a lint-free cloth.

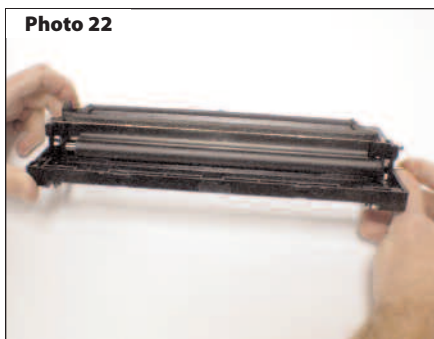
Photo 20





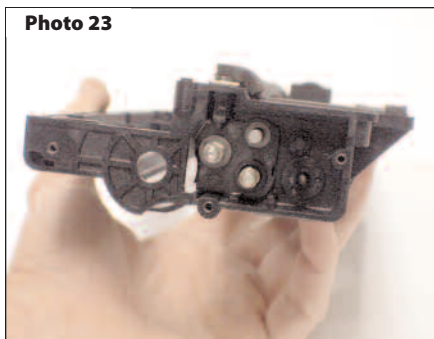
Step 18

Carefully clean the doctor blade using Acetone and a cotton swab. (See Photo 21)
NOTE: If too much pressure is applied while cleaning the doctor blade, the blade could bend. If this occurs, a dark streak would appear running down the page.



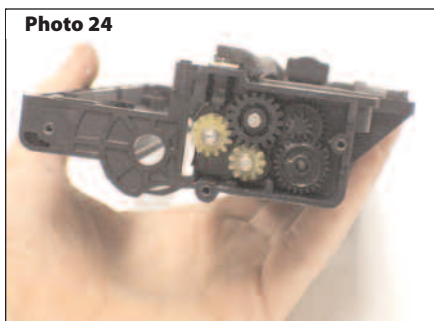
Step 19

Slide the cleaned developer roller back into the cartridge.
(See Photo 22)



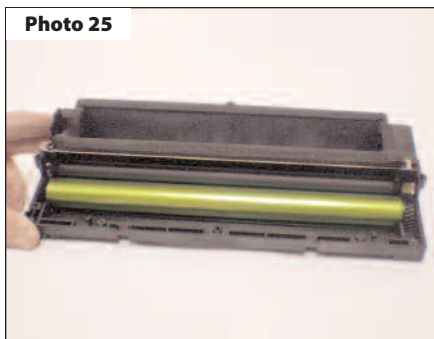
Step 20

Install the developer roller end plate. Press the end plate until the two locking tabs are pushed into place.
(See Photo 23)



Step 21

Install the five gears on the end of the cartridge.
(See Photo 24)



Step 22

Carefully place the drum into the cartridge.
(See Photo 25)

Notes

Series of horizontal lines provided for taking notes.

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Notes

Photo 26


Step 23

Place the wiper blade assembly into the cartridge. Install the two screws that hold the wiper blade assembly in place.

(See Photo 26)

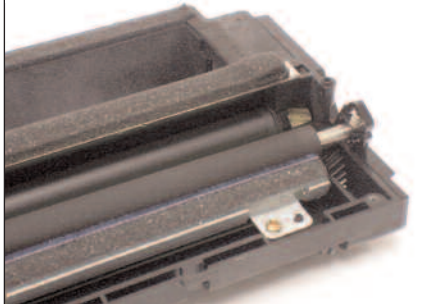
Photo 27


Step 24

Install the cartridge end cap on the gear end of the cartridge. Install the three screws that hold the end cap.

(See Photo 27)

Photo 28


Step 25

Install the non-gear end of the PCR into the saddle clip on the cartridge end plate.

(See Photo 28)

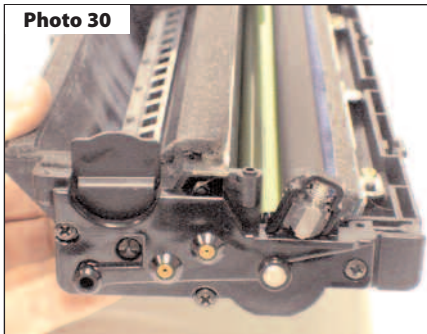
Photo 29


Step 26

Slide the cartridge end cap onto the opposite end of the cartridge. Lift up on the PCR saddle and install the PCR axle into the saddle clip.

(See Photo 29)

Photo 30


Step 27

Install the three screws that hold the end cap.

(See Photo 30)

Photo 31

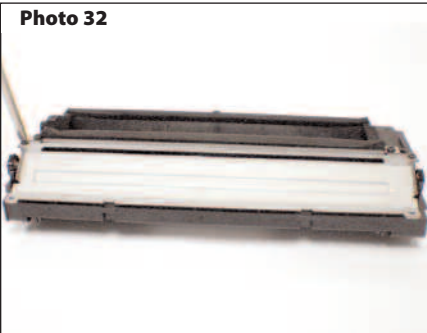


Step 28

Step 28: Fill the cartridge with toner.
(See Photo 31)

NOTE: If the cartridge being remanufactured had a metal plate that covered the PCR and drum, place the metal plate back onto the cartridge at this time. Install the two screws that holds the plate in place. See Photo 32)

Photo 32



Step 29

Place the top of the cartridge onto the cartridge. Press down on the top of the cartridge until it snaps into place. Install five screws into the cartridge. (See Photo 33)

Step 30

Test the cartridge.

Photo 33



Notes

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Remanufacturing the Samsung ML1210

Released in 2001, the Samsung ML-1210 engine was utilized by Lexmark in the E210 and by Samsung in the ML-1010, 1220M, 1210, 1220M, 1250, 1430, 4500, and the ML-4600 series of printers. The Samsung ML-1210 engine is capable of printing 12 pages per minute at 600dpi and is rated at a 5,000 page duty cycle. These printers were discontinued back in 2002 but are still fairly popular amongst remanufacturers.

The all-in-one cartridge holds 65 grams of toner and yields only 2,500 pages at 5% coverage. Two separate part numbers are given for the Samsung



cartridges. The ML-1010, 1020M, 1210, M1220, 1250, and 1430 printers use

cartridge P/N ML1210D3. The ML-4500 and the 4600 use P/N ML4500D3. The part number for the Lexmark version cartridge is 10S0150.

One unique feature of this engine is the use of a toner that is stated to have 100% transfer efficiency. The waste hopper has no real chamber that could hold a large amount of waste. The use of a toner that wasn't close to having 100% transfer efficiency would overload the chamber and result in toner leaking from the so called waste hopper. Lastly, the wiper blade is a mylar strip that resembles a recovery blade, not a wiper blade.