

Xerox DocuColor 250 (DC250 style)... Black Drum Cartridge Reconditioning (13R602)

*Xerox Docucolor 240, 250, 242, 252, 260,
WorkCentre 7655, 7665, 7675*



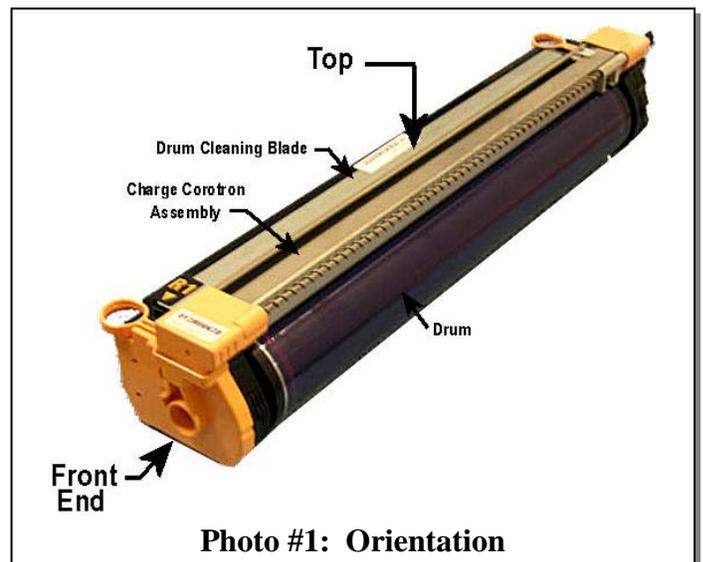
The Xerox DocuColor (DC) 250 style machines are doing good out there and the supply items are in need of attention... They have 4 Drum Cartridges. One is for the black color (113R602) which sits in the “R1” position, and then they have 3 of the 113R603 drum cartridges in the machine (one for cyan, magenta and yellow in “R2”, “R3”, & “R4” respectively). This instructional deals with the black drum cartridge.

Like many of the other parts in this machine, the drums are accessed by pulling out a maintenance drawer (the drum ctgs are in the top drawer). The black drum cartridge has two finger-pull rings (one at the front and one near the rear end) so it is removed by sliding out the drum maintenance drawer and then lifting the cartridge out.

These cartridges are sold under the part number 13R602. When you buy one it comes with the Charge Corotron on top... that corotron is also spared by itself under the part number 13R604. Apparently the corotron has a shorter lifespan than the drum cartridge itself. The drum cartridge is equipped with a CRUM (customer replaceable unit monitor) which uses the relatively new RF (Radio Frequency) type of Chip. The machine reads and writes to the RF CRUM to keep track of the drum cartridge’s copy count. Replacing the CRUM (our part#: DC250CNB) will reset the drum count and allow you to get a full yield out of the cartridge. Interestingly, the Charge Corotron also has its own little board (this one has two contacts... not an RF type of chip). The little board on the corotron has a tiny component on it... probably a fuse but it could also be an indexing resistor since its shape doesn’t give it away.

The Charge Corotron has a clever little self-cleaning apparatus on it. A cleaning pad on a little carriage rides across the corotron cleaning the top of the charge grid... it’s driven by an auger which gets its drive from a motor on the machine side. The Charge Corotron is easily separated from the rest of the drum cartridge by simply sliding it forward about a quarter of inch and then lifting it up and off.

The cartridge is pretty straight forward and comes apart easily for cleaning and replacing components. The drum cleaning is done by a rather typical looking Cleaning Blade and a cleaning brush as well as a typical mylar recovery blade opposite the Cleaning Blade. There’s a waste toner auger along side the cleaning brush which takes the waste toner away through a spring-loaded sliding shutter at the rear end of the cartridge.



Drum drive is from the rear end of the cartridge... a coupling type of gear. The drum ground is made from the machine's drive shaft which makes contact with a ground clip inside the drum cylinder at the drive end of the drum.

PROCEDURE:

Have a look at Photo #1 which shows the orientation of the cartridge as I'll refer to it in the procedure which follows.

1.- **The Charge Corotron Assembly comes off by sliding it forward about ¼ inch, and then lifting it up & off.**

2.- **Remove the front end cover** (1 phillips head screw). On the front end cover you'll find a pair of static grounding clips. The front Finger Pull falls off in your hand. Behind the cover you'll also find a pair of 'D-Shaft' gears which transfer drive from the Cleaning Brush to the Waste Toner Auger. Mind the gears because they will now fall right off.

3.- **Remove the Rear End Cover** (1 phillips head screw). (see Photo #2) The RF Connector CRUM (customer replaceable unit monitor) is located behind this cover (it'll fall off of the cover at this point easily enough). You will need to replace this RF CRUM to reset the Black Drum Count. The rear Finger Pull is now loose, so take it off. The Cleaning Brush Drive Gear can also be easily removed at this point.

4.- **Turn the unit on its "left side" so that the drum is facing upward. Now remove the Rear Drum Bearing Retaining Clip** which slides directly out the back (see Photo #3) and the Front Drum Bearing Retaining Clip (slides out the front in a similar fashion). Then lift the Drum up and out of the cartridge.

5.- **The Drum Cleaning Blade can be removed** (2 phillips-head screws). You will need to either peel off or cut the "R1" sticker as well as the barcode sticker because both stickers are on the blade's bracket and the plastic frame.

6.- **Clean everything up nicely & reassemble...** Use a toner dust cloth and a vacuum with a toner-rated filter... be particularly gentle around the cleaning brush and the mylar recovery blade which are easily damaged. Slide forward the spring-loaded waste toner "Cleaning Auger Shutter" to get to the toner in the end of the waste auger (refer again to Photo #2)

