



Lexmark CS310dn toner refill instructions

Before use, familiarise yourself with the safety information on pages 6 and 7.

For use when refilling the following family of printers:

CS310n, CS310dn

CS410n, CS410dn, CS410nw, CS410dnw, CS410dtn, CS410dtnw

CS510de, CS510dew, CS510dte

Consider doing the refill on top of sheets of old newspaper in case of accidental spills.

Not suitable for "extra high" capacity cartridges

Printers in the 510 series are capable of using "extra high" capacity cartridges, with product codes of the form:

- 70C2XK0 8K yield black
- 70C2XC0 4K yield cyan
- 70C2XM0 4K yield magenta
- 70C2XY0 4K yield yellow

This product has **not** been designed to refill these extra high capacity cartridges.

Refill technique is the same for "starter cartridges" and bought cartridges

The new printer arrives with "introductory cartridges" (also known as "inbox" and "starter" cartridges). These can be refilled in exactly the same way as the standard and high yield bought cartridges, which have product codes of the form:

- 70C20K0 1k yield black
- 70C20C0 1k yield cyan
- 70C20HK0 4K yield black
- 70C20HC0 3K yield cyan

To avoid disappointment, make sure you're about to refill either a standard or high capacity bought cartridge with a product code of the form specified in this section, or one of the printer's "starter" cartridges.

Ignore "[colour] cartridge low" message

Ignore "[colour] cartridge very low" message

Refill and change chip only when you get the following:

- LCD panel scrolling message: "Replace [colour] cartridge, 0 estimated pages remain [88.31]"
- Indicator light blinking red
- Printer refuses to print (print jobs often stop half way through)



Refill and change the chip only when you get all 3 of these symptoms: scrolling "Replace [colour] cartridge" message, indicator light blinking red and printer refuses to print.

If you haven't got all three, do not refill: it isn't the right moment.

Only refill and change the chip on the cartridge mentioned in the message. Leave the other colours alone.



Lift green tab to take target cartridge out of printer



Warning! Only refill and re-chip the cartridge mentioned in the "Replace [colour] cartridge" message. Do not do anything with the other cartridges.

How to refill it

- 1) Tear off label to expose oval-shaped plug



- 2) Carefully lever out plug with 3mm flat blade screwdriver
- 3) Shake unopened bottle vigorously for 5 seconds
- 4) Open toner bottle, remove heat seal if present and screw on spout as tightly as possible





- 5) Marry up spout with hole maintaining bottle below the horizontal
- 6) Jam spout into hole and up-end all to get bottle to near vertical



- 7) Wait for a count of 5 for toner to flow in
- 8) Rotate bottle back down to horizontal and disengage from cartridge
- 9) Shake bottle with finger firmly over end of spout
- 10) Repeat shake/pour until there's no toner left in bottle. CARE: SOMETIMES AERATED TONER (ESPECIALLY BLACK) WILL ONLY JUST FIT INTO CARTRIDGE. TO AVOID SPILLS, LEAVE 10 SECONDS EXTRA SETTLING TIME BETWEEN POURS



- 11) Replace plug



- 12) Clean any stray toner from around plug area with the swab provided

- 13) Remove small Phillips Head screw

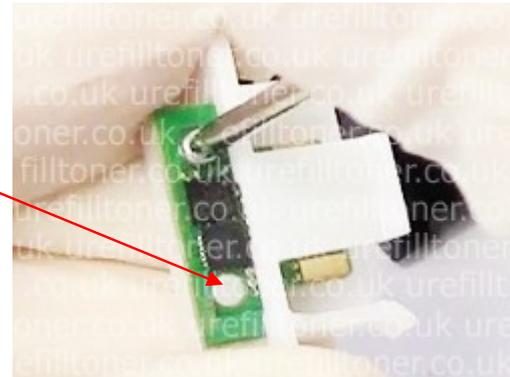
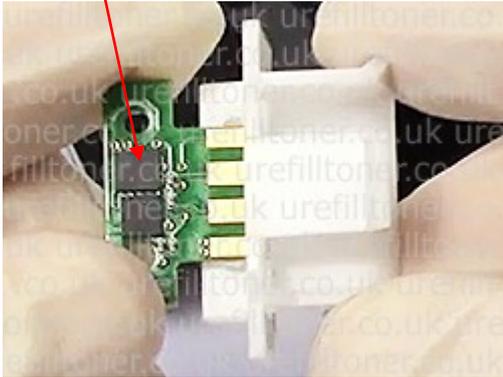


- 14) Take off the chip-holder retainer and pull out the whole of the white chip-holder structure





- 15) Unscrew the one screw that holds the chip and take out the old chip
- 16) Slide in new chip, making sure brass plates and black transistors are facing out



- 17) Put the screw back in to secure the new chip
Notice the chip's other hole has to be on the locator post
- 18) Replace the white chip-holder structure.
CARE! The apparent upside down "L" formed by the end of the white structure **must be as shown**

Surface that has the plug on it



Note position of plastic fin relative to upside-down "L"



The white structure will be quite loose, but as long as it's orientated as shown, you'll have no problems.

- 19) Replace the black rectangular retainer
It hooks on at this end first
Note: even now the white chip-holder structure is fairly loose. That's OK. It actually finds the right position when the cartridge is put into the printer



- 20) Replace the small Phillips Head screw



- 21) That's it. Put the cartridge back in the printer



Three refills, and maybe then some

If you've been following us since the early 1990s (and who hasn't) you might know that we put "our corporate neck on the chopping block and say that the rule of thumb is **three refills, and maybe then some**".

As far as problems due to "wear and tear" go, these Lexmark cartridges are firmly in the "and then some" camp.

You can normally expect well beyond 3 refills of these because they don't contain any of the substantial components of the print engine.

Those "substantial components", such as the developer sections and the OPC drums are contained in the so-called "consumable items" the printer uses. They are more prone to degradation and wear than the toner cartridges and have their own service cycle.

Other things the machine uses

Besides the toner cartridges which these instructions have focussed on, the printer also uses other consumable parts that have their own replacement cycle, but could cause print problems if they malfunction early.

The one you're liable to run into first is the waste toner collector: quoted as lasting for 18K pages.

The developer units and the photoconductor unit are all quoted as lasting for 40K pages, although experience suggests you might need to take these claims with a pinch of salt.

See the maintenance section of your User Guide for detailed information on all the consumables.



Safety Data Brother Lexmark CS310 type toner

Only to be used by a competent risk-aware adult. Not to be used by children.

Consider personal safety issues when using a screwdriver as a lever: consider danger to the eyes, limbs, hands and other body parts to from unexpected releasing of resistance to the tool.

Avoid inhalation of product. Avoid eye and skin contact. Do not ingest. Avoid sources of ignition while pouring and at all times.

1 Identification of the substance and the company

Product name	Lexmark CS310 type refill toner
Part no.	LECS310BOTB, LECS310BOTC, LECS310BOTM, LECS310BOTY
Supplier	U Refill Toner Ltd.

2 Hazards identification

Classification	Not believed to be classified as hazardous according to OSHA CFR 1910.1200 or EU Directive 1999/45/EC, as amended.
Acute health effects Skin contact Eye contact Inhalation Ingestion	Unlikely to cause skin irritation May cause irritation Irritation to respiratory tract if exposed to large amounts of toner dust Unlikely when used as intended. Acute oral toxicity is believed to be low
Potential health effects Routes of exposure	Skin contact, eye contact and inhalation. Ingestion unlikely.
Chronic health effects	Prolonged inhalation of excessive amounts of any dust may cause lung damage
Carcinogenicity	Carbon black is classified by IARC as group 2B (possible human carcinogen). Carbon black in this preparation, due it its bound form, is not believed to present this risk. Polypropylene (9003-07-0) is classified by IARC as group 3

3 First aid measures

Inhalation	Move person to fresh air. If breathing is difficult, obtain medical assistance
Eye contact	Flush with plenty of low pressure water for at least 15 minutes. Do not rub eyes. Remove contact lenses to ensure thorough flushing.
Skin	Wash with water, obtain medical attention if ill effects occur
Ingestion	Seek medical advice. Oral toxicity is believed to be low.

4 Fire fighting measures

Hazardous combustion products	Carbon monoxide and carbon dioxide
Extinguishing media	Water, dry chemical, carbon dioxide or foam
Special fire fighting procedures	Avoid inhalation of smoke. A self contained breathing apparatus and suitable protective clothing should be worn.
Unusual fire & explosion hazards	Toner is a combustible powder; formation of an explosive dust-air mixture is possible. Avoid all ignition sources if toner has been dispersed in air.

5 Accidental release measures

Spill/leak procedure	Sweep up or vacuum spilled toner and transfer into sealable waste container. Sweep slowly to minimize generation of dust. If vacuum is used, the motor must be rated as dust tight and safely applicable to the vacuuming of toner dust. Residue can be removed with soap and cold water. Garments may be washed or dry-cleaned after removal of loose toner.
Environmental precautions	Do not flush into surface water or sanitary sewer systems. Dispose of waste material in accordance with all applicable laws.

6 Handling and storage

Handling	Keep containers closed when not in use. Handle and open containers with care. Use with adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Keep away from sources of heat, sparks and open flames.
Storage	Store at room temperature in the original container. Keep container tightly closed and dry. Do not store with strong oxidizers.

7 Exposure controls and personal protection

UK exposure guidelines	WEL: 10mg/m3 (inhalable dust), 3mg/m3 (respirable dust)
Personal protective equipment Eye / face Hands / skin Respiratory protection Additional measures	Wear dust resistant safety goggles if there is danger of eye contact Wear protective gloves Wear approved respirator for dust when exposure exceeds permissible limits Use in a well ventilated area. Use engineering controls to reduce air contaminants to permissible limits. Wash hands after use.

8 Toxicological information

Oral toxicity	Tests on toners have indicated there is no evidence of acute oral toxicity. Not classified for acute oral toxicity according to EU Directive 67/458/EEC and 1999/45/EC
Inhalation toxicity	No data
Eye irritation	Not classified as irritant according to OSHA HCS and EU 67/548/EEC as amended
Sensitization	Not classified as sensitizer according to OSHA HCS and EU 67/548/EEC as amended
Chronic toxicity	No data
Carcinogenicity	Carbon black is classified as a group 2B by IARC, but carbon black is present only in bound form in this preparation. Polypropylene (9003-07-0) is classified by IARC as group 3
Mutagenicity	Negative (AMES test)
Reproductive toxicity	Not classified as toxic according to EU 67/548/EEC as amended

9 Ecological information

Not tested for ecological effects

10 Disposal considerations

Collect into tightly sealed containers. Dispose of waste in accordance with all local laws. Do not throw in open fires in order to prevent risk of dust explosion.
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11 Transport information

General	Not regulated
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12 Other information

Labelling EU 67/458/EEC R & S phrases Hazard symbol	Not required Not required
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Notice. All safety information is given to help facilitate the safe use of this product and is based on information obtained from the manufacturer. This information is believed to be correct, but does not purport to be all-inclusive and shall only be used as a guide. U Refill Toner Ltd makes no warranty, express or implied, as to the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and / or compliance with local laws and regulations.

All information offered is believed to be true and is offered for consideration in good faith. However, U Refill Toner Ltd gives no warranties, neither explicit nor implicit as to the completeness or accuracy of any information offered nor the ultimate safety of refilling toner cartridges in any manner described or suggested nor the ultimate safety or hazardousness of products supplied by U Refill Toner Ltd. The onus is on the purchaser to evaluate all possible risk, including the possible incompleteness or inaccuracy of currently available information, and by proceeding to use the refill product or products, the purchaser thereby assumes all risk of peril or injury howsoever arising.

If you the purchaser decide not to go ahead with refilling for whatever reason, simply return the product or products to U Refill Toner Ltd and we will cheerfully refund your money. Your statutory rights are unaffected.



Refills by you ... thanks to you

Thanks for refilling the toner cartridges in your printer. We invented "do-it-yourself" toner refills in 1992, "melt & pour" in 1996 and put "unplug & pour" into internet-speak in 2002. We've never tried to patent or otherwise restrict the use of these ideas.

If you liked our product, please recommend us to friends and colleagues. We've survived for over 23 years – fighting giant corporations that dwarf us – thanks to your custom and recommendation. No one here takes that, or you, for granted.

U Refill Toner. Now needed more than ever. Now refined more than ever.

- ✓ more than halve the cost
- ✓ halve CO₂
- ✓ defend your consumer choices and right to reuse



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