OKI C310dn, 330dn, 510dn, C511, 530dn, C531

Toner refill instructions

Also for: MC351dn, MC352, MC361dn, MC363, MC561dn, MC562

These Copyleft instructions, made available free of charge at

 $\underline{\text{http://www.urefilltoner.co.uk/instructions/oki/oki-C310dn-toner-refill-instructions.pdf}}$

are based on those included with our Oki C310dn Starter Kits, available in the UK and Europe at

 $\frac{\text{http://www.urefilltoner.co.uk/toner refill products.aspx?manufacturer=Oki\&engine=OKC310\&printer=C310dn}{+\%2f+C330dn}$

A Starter Kit is our "zero to hero" kick-start. It's got all the materials and know-how you need to refill your empty cartridge. And get it right. **First time**.

These instructions show you *how we did it*, not how we *imagine* it could be done. In the case of the Oki C310dn, before releasing our Starter Kit in May 2012, we'd successfully done this refill 17 times. Most of the



pages printed during these tests were sent out to customers in the form of instruction booklets. Subsequently, we used the C310dn as our main production printer in the sales office, where our staff are responsible for running and refilling their own printers. This is to make sure we're "in your shoes".

These instructions will help you avoid refill problems through detailed guidance on critical issues which would only be known to people who have actually worked with the machine.

For example, in the Oki C310 Series, the so-called "starter cartridges" (that's the ones that arrive with the new machine) cannot be refilled. Bear in mind most companies willing to sell you a C310 toner refill will not have tried it themselves first. They won't have ever set eyes on an original C310 cartridge, much less a starter cartridge.

We've left in all substantial information needed for a successful

refill, assuming you're using our products. Obviously, we can't guarantee the efficacy of a refill if you're not actually using our stuff.

Only more specific information about the tools and equipment included in our Starter Kit has been removed because it isn't relevant if you haven't actually got the Starter Kit in your hands. No substantial information about the refill technique that worked in our test lab – 17 times - has been removed.

The majority of our instruction booklets are only available included in their respective Starter Kit. Those that, like this one, are available for free, are only released after we've been selling the commercial product for a reasonable amount of time. That's because, although this document is free, we're a business and we can't do everything free all the time.

Apart from that, in this Copyleft, you have to put up with extensive water-marking over the photography. We apologise for that, but we're forced to do it because of intellectual property theft by our "competitors". Well, actually, we're at peace with the fact they copy our inventions and most of our ideas: the watermarking only stops the very worst cases of wholesale commercial rape.

If you **are** a competitor and you're reading this: don't sell a refill to your customers if you can't be bothered to try it yourself first.



You'll end up with a lot more satisfied customers. Customers who'll remember you the next time the dreaded "toner low" message appears. If you haven't got the test lab and man-power resources available at U Refill Toner, then feel free to get in touch about using our instructions under licence through our web-based contact form. Using our instructions under licence isn't free, by the way. But neither is developing any product that works properly.



Refill any bought cartridge format: it comes out as standard capacity

If you've got a C510dn, C530dn or MC561dn, your machine is capable of using standard capacity or high capacity cartridges. Either type can be refilled using this starter kit, but the result is equivalent to a standard capacity cartridge. This is a conscious design decision on our part: any format of bought original cartridge can be refilled without fear of overfilling or mistaking what kind of cartridge you've got.

Starter cartridges can't be refilled

A new machine arrives with so-called "starter cartridges" which differ from the cartridges you buy later in some significant ways. A starter cartridge lacks a chip, the frame where the chip normally sits and the OKI branding stamp.





Ignore "ORDER TONER" message Refill at "REPLACE TONER 41X: [Colour] TONER EMPTY" message

Refill the cartridge only in response to the following symptoms:

- Flashing "attention" light
- REPLACE TONER 41X [Colour] TONER EMPTY message on printer LCD
- Machine refuses to print

Having got these symptoms, do the refill and chip change procedure that starts on page 3.



Important: only refill the target cartridge

Only refill the cartridge specifically mentioned in the message (K = black, C = cyan, M = magenta, Y = yellow). Don't "top up" all the cartridges "while you're at it". The laundry list of things that can go wrong with this approach is as long and dreary as the websites that promote it. Make up your mind right now to just refill each individual cartridge as and when necessary



How to refill it

- 1) Turn on melting tool and leave to warm up for 5 minutes
- 2) Melt hole as shown ...



- 3) Shake toner bottle for a count of 5 before opening.
- 4) Open toner bottle and screw spout on. Wrap tape around neck to avoid all leakage of micro fine toner. "Duct tape", also known as "Gaffa tape" is best, but any wide tape will do.
- 5) Hold cartridge as shown with one hand. Use other hand for bottle.
- 6) Keeping bottle below horizontal, marry up to hole in cartridge and, keeping spout jammed in with distinct pressure, lean cartridge back to about 45 degree angle.





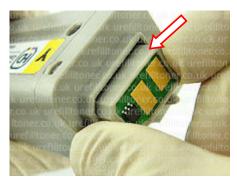


- 7) Wait for a count of 10 for toner to flow in.
- 8) Keeping spout in hole, rotate bottle down to below horizontal. Disengage bottle from cartridge. Repeat steps 5 to 8 until there's no toner left.
- 9) Use alcohol swab to clean up any stray toner around hole.
- 10) Seal around lip of plug with thin bead of silicon glue supplied (for future, bathroom sealant works just as well)





- 11) Apply plug by marrying inside edges of melted hole with plug's groove. Observe plug every now and then. If any toner is escaping, clean area and re-seal around plug with more silicon glue or bathroom sealant.
- 12) Locate chip on end of cartridge, squeeze frame in direction of arrow shown and lift out





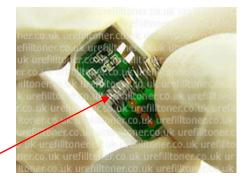
13) Remove small compression spring and pull old chip from back of chip frame





14) Fit replacement chip into frame as shown, the two chamfered corners on the chip match up with chamfered corners in frame





- 15) Refit compression spring onto locating spigot
- 16) Rear view of replacement chip and spring





17) Fit chip assembly back onto cartridge chamfered side first, then gently squeeze other side into place



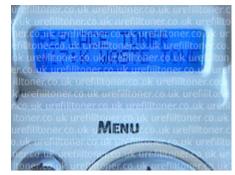
Empty waste at "REPLACE TONER 417: K WASTE TONER FULL" message

Empty waste in the black cartridge in response to the following symptoms:

- Flashing "attention" light
- REPLACE TONER 417 K WASTE TONER FULL message on printer LCD
- Machine refuses to print

Waste toner from the printing processes of all 4 colours collects in a compartment attached to the black cartridge. When it's full you get the above symptoms.

We found this happened just shy of 9,000 prints, but we were really "hammering it". With runs of more sparsely printed pages, you'll go longer before the waste fills up.

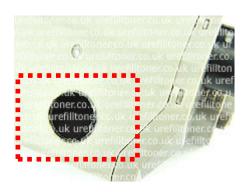


Once the waste's full you can either buy a new black cartridge or empty the waste.

It's your call, but be aware that emptying the waste has the potential to be messier than just refilling. And we emptied out 185g of waste, which is a lot. If you want to empty the waste, the next section shows you how

1) Melt hole in position shown by red boxes





- 2) Shake waste toner straight into an outside bin
- 3) Wipe stray toner from cartridge surface with absorbent paper
- 4) Use alcohol swab to clean and prepare flat surface around hole
- 5) Cover hole with any tape that's wide enough. Some duct tape's included in the kit to get you started
- 6) Put cartridge back in printer. "Waste Toner Full" message goes away and machine will print again

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Other consumables used by the printer

Besides toner cartridges, the machine also uses an image drum, fuser unit and transfer belt. All of these have maintenance profiles which are independent of the toner cartridges and all of them cause print problems if not working right.

The image drum, with a nominal yield of 20,000 copies, is the one you're liable to come up against first. Check the asterisks and small print, though, and you'll find some bizarrely worded caveats about image drum life. Check your User Guide for detailed information (and dis-information?) on all consumables.

Don't update your firmware

The way the machine responds to a perceived empty cartridge can be modified by updating the firmware. We recommend you do not allow the machine to update firmware across the internet. It could re-program your machine to reject our compatible chips.





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you're in the toner refill business and you want to use concepts found here to give your customers a better experience when refilling toners, please be our quest.

Feedback

How are we doing? All opinions on these instructions and on anything we do are welcome. Please have your say at

https://www.urefilltoner.co.uk/contactform.aspx

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OKI C310 Instructions Copyleft Edition August 2013

