



Brother HL-L3230cdw toner refill instructions

Also OK for ...

HL-L3210cw, HL-L3270cdw

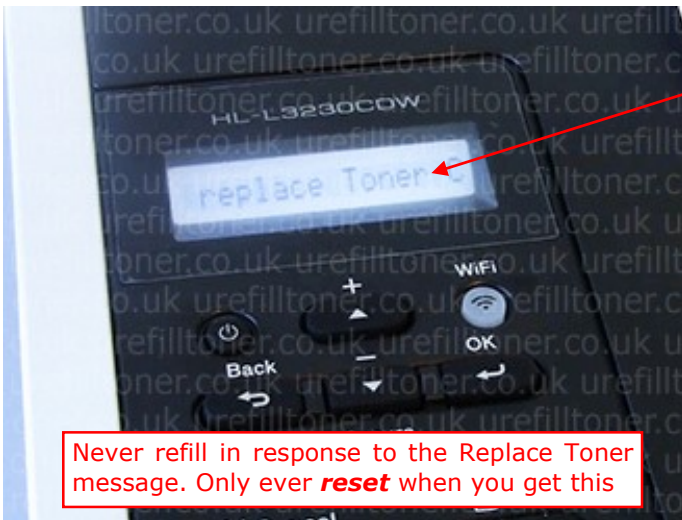
DCP-L3510cdw, DCP-L3550cdw, MFC-L3710cw

MFC-L3730cdn, MFC-L3750cdw, MFC-L3770cdw

Before use, familiarise yourself with the safety information on pages 10 and 11

WARNING!

**Never refill in response to the "Replace Toner" message
Instead *reset***



Never refill in response to the Replace Toner message. Only ever **reset** when you get this

Printer refuses to print and ...

you get a scrolling LCD panel message of form "Replace toner. Open the front cover, replace toner cartridge [colour]"

All you do is **reset** the cartridge of the colour shown in the message

Do not put more toner in as a response to these symptoms. There could be significant amounts of toner still in the cartridge. It's critical *not* to refill on top of that toner.

One last time: only ever **reset** in response to the "**Replace Toner**" message. Do **not** put more toner in.



WARNING!

Only put toner into a cartridge that has faded out

Only refill the colour that's actually fading out

So you've reset one or more cartridges and you've carried on printing. At some point you'll notice your prints don't look right anymore. The word "faded" might come to mind, but it might not be clear what's going on. So now print the fade out test swatch from here ...

<http://www.urefilltoner.co.uk/downloads/toner-refill-fade-out-swatch.pdf>

<http://www.urefilltoner.co.uk/downloads/toner-refill-fade-out-swatch.pdf>

Colours affected on swatch	Cartridge / drum affected
Black only	Black
Blue only	Cyan
Blue and orange	Magenta
Yellow and orange	Yellow




Black only affected? Black's fading

<http://www.urefilltoner.co.uk/downloads/toner-refill-fade-out-swatch.pdf>

Colours affected on swatch	Cartridge / drum affected
Black only	Black
Blue only	Cyan
Blue and orange	Magenta
Yellow and orange	Yellow




Blue only affected? Cyan's fading

<http://www.urefilltoner.co.uk/downloads/toner-refill-fade-out-swatch.pdf>

Colours affected on swatch	Cartridge / drum affected
Black only	Black
Blue only	Cyan
Blue and orange	Magenta
Yellow and orange	Yellow




Blue and orange affected?
Magenta's fading

<http://www.urefilltoner.co.uk/downloads/toner-refill-fade-out-swatch.pdf>

Colours affected on swatch	Cartridge / drum affected
Black only	Black
Blue only	Cyan
Blue and orange	Magenta
Yellow and orange	Yellow




Yellow and orange affected?
Yellow's fading

Now put our whole bottle of toner into the ONE CARTRIDGE you have confirmed has faded out



Diagnose/confirm emptiness by weight

365g - 369g empty cartridge without a reset wheel and spring

367g - 371g empty cartridge with a reset wheel and spring

In an ideal world, fade out will look pretty much like the images on page 2 when it starts.

Sometimes you can be unlucky. Although it's rare, 2 cartridges can fade out at the same time. That can be tough to make sense of on the swatch.

Also, both cartridges and drums can develop other faults which affect the coloured blocks on the swatch, but they're nothing to do with a lack of toner. That can be confusing too.

If you've got access to scales that are accurate to a couple of grams, you can confirm the truly empty cartridge by weight.

A completely empty cartridge with no reset wheel on it weighs within a couple of grams of 367g (369g with a reset wheel and spring on).

Conversely, if you've got a cartridge behaving strangely, but its weight is nowhere near 367g, you can be sure it's not lack of toner that's causing the problem. And in that case refilling it won't help.



When resetting "in-box cartridges", add a reset wheel

Your new machine arrived with a set of what Brother calls "in-box" toner cartridges. They're different from the ones Brother subsequently want you to buy. In-box cartridges lack the numeric stock code and the white reset wheel that you'll see on bought cartridges.



In order to reset in-box cartridges, you need to *add* a reset wheel.

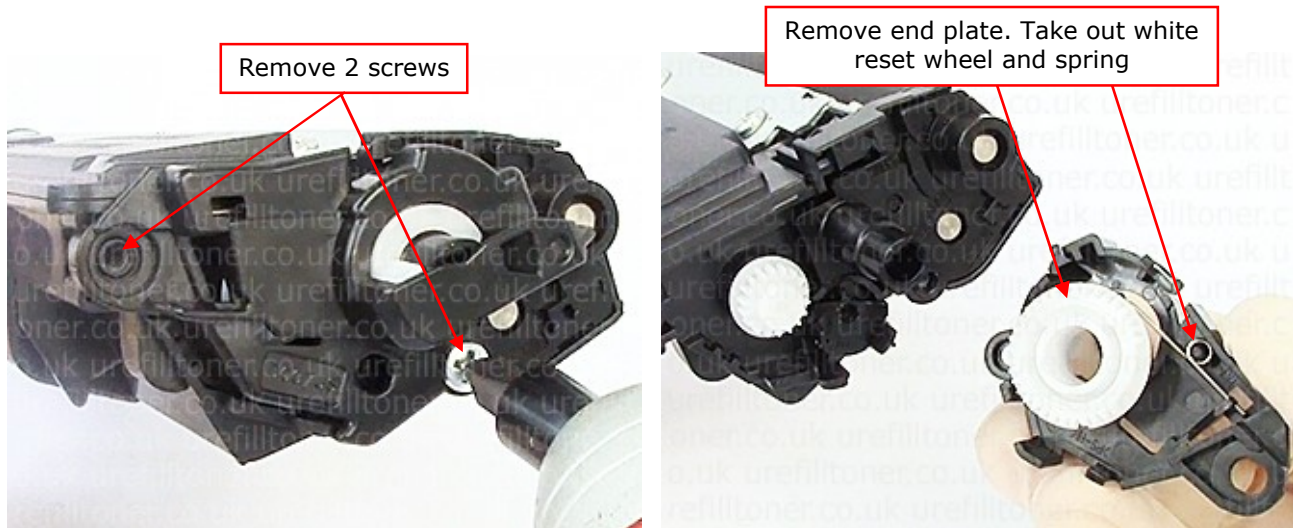
At the time of writing (March 2019), the only source of the necessary reset wheel is a Brother original cartridge. We bought a Brother TN-427BK cartridge - the high capacity black.

We took the reset wheel off the TN-427BK and used it to reset **all** of the in-box cartridges as needed.

As soon as a cartridge has been accepted as reset by the machine, you can take the reset wheel off that cartridge and use it again when needed.

Of course, any bought original cartridge can also be used whenever you like by similar means. The value of your original cartridge isn't lost because you borrow its reset wheel.

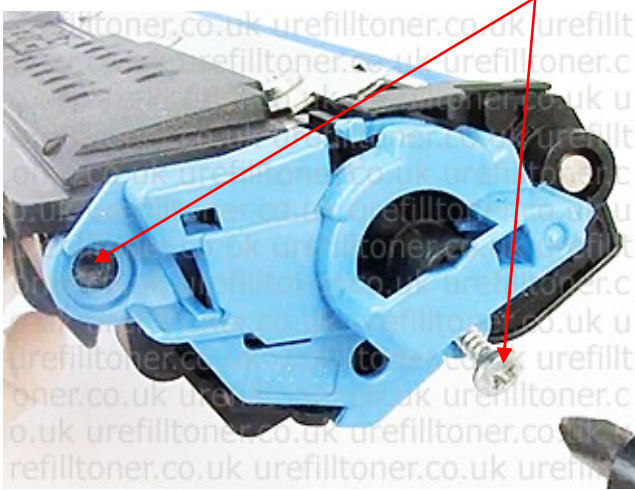
How to get the reset wheel from a Brother original cartridge



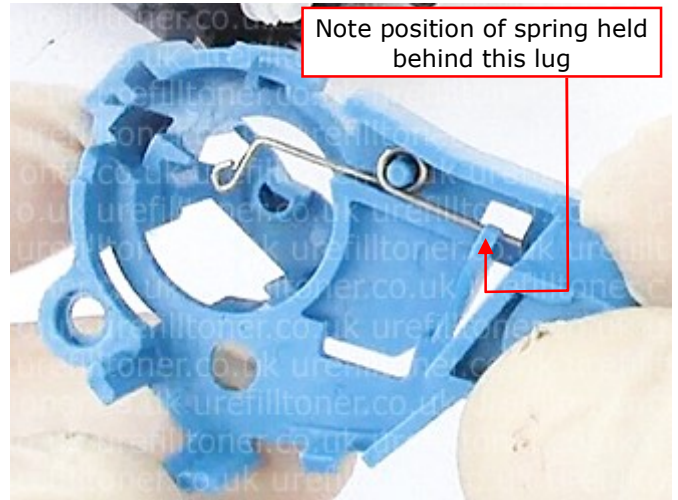


How to reset an in-box cartridge

1) Find this end of the cartridge and remove 2 screws



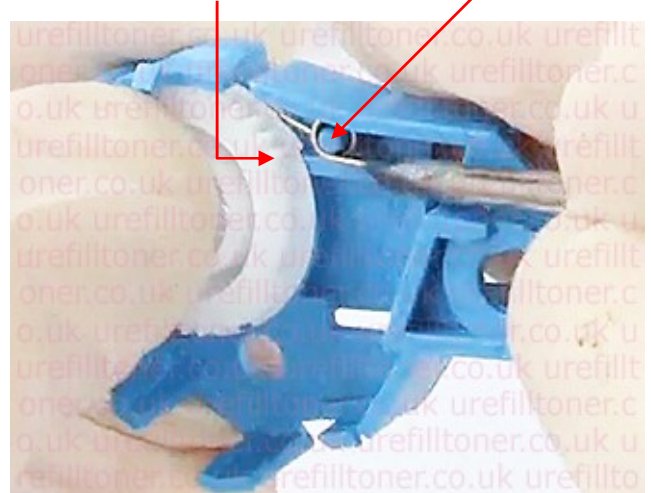
2) Lift off the end plate. Add the spring to the inside of the end plate exactly as shown



3) Lift end of spring out of way with small screwdriver and hold there with the fingers of one hand



4) Put the wheel in and remove screwdriver. Note position of first cog tooth relative to post



5) Replace end plate and re-tighten the 2 screws. From the outside it should look like this. Note the position of this plastic lug

If not like this disassemble and try again

6) Put your reset cartridge back in the printer. After initialisation, the printer will assume you've put a new cartridge in. Now keep printing and **DO NOT PUT MORE TONER INTO ANY CARTRIDGE UNLESS IT HAS FADED OUT**

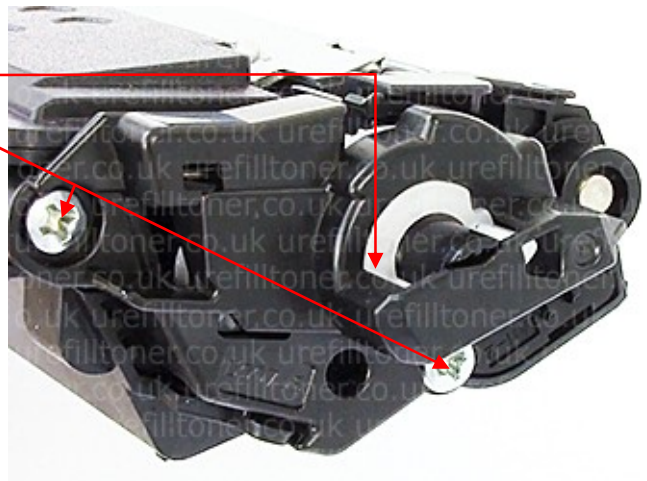
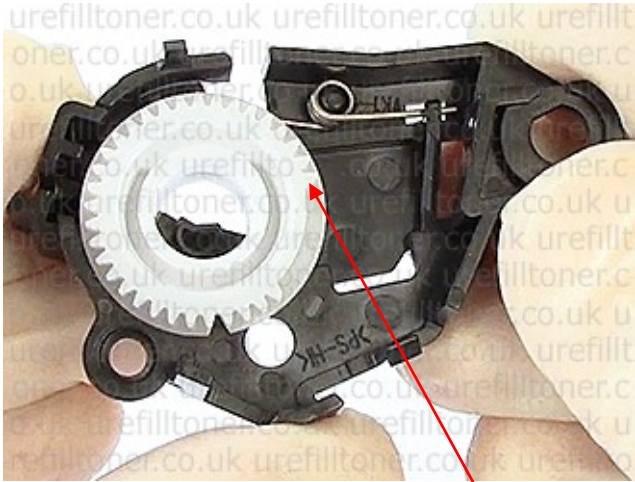




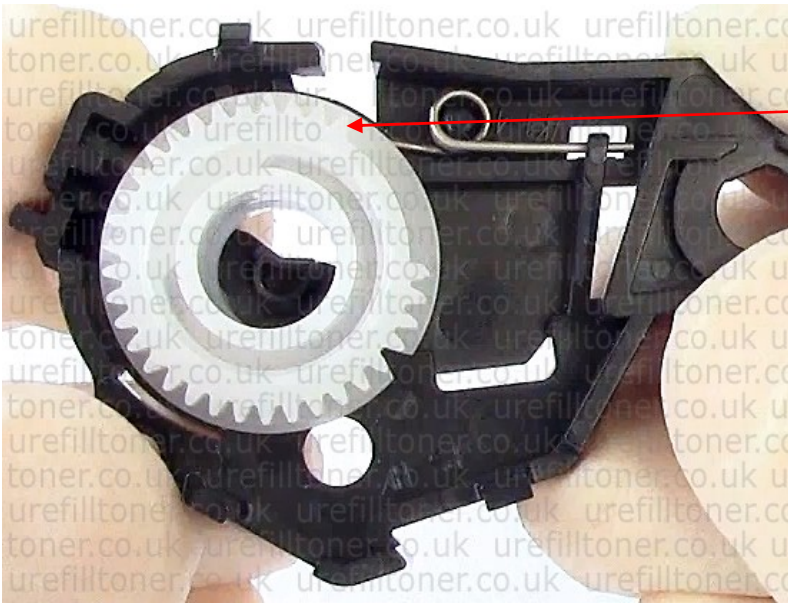
How to reset a bought cartridge

Also applies to a starter cartridge to which you previously added a reset wheel.

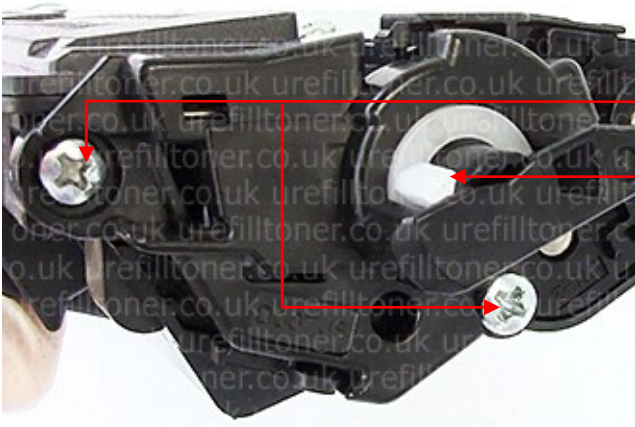
- 1) As you take the cartridge out of the printer, you'll see the reset wheel is in the "fired" position. White lug has moved down
- 2) Take the end plate off by un-doing 2 screws



- 3) Note the "fired" position: this cog tooth at about the 3 o'clock position



- 4) Turn wheel clockwise through most of a revolution until that same cog tooth is here. When correct, you'll feel that the wheel naturally wants to stay in this position



- 5) Fix end plate back on with the 2 screws
- 6) Check correct loaded position: this horizontal lug completely visible here
- 7) **DO NOT** put more toner in. Put cartridge back in machine and carry on printing until it fades out through being completely empty



How to put more toner in

WARNING!

**Do not put more toner in because of a "Replace toner" message
Only put toner into a cartridge that is fading out
See pages 1, 2 and 3 if in doubt**



1) Identify where to melt hole ...

Use the 2 corners of the knurled-effect plastic as rough guides



2) Melt hole with bigger end of copper melter (for guidance on the safe use of the copper melter, see page 11)



3) Shake unopened bottle vigorously for 5 seconds

4) Open toner bottle and screw on spout

5) Marry up spout and hole with bottle below horizontal to avoid spillage

continued >>>



- 6) Jam spout into hole and lean everything back to a lower angle
- 7) Wait for a count of 5 for toner to flow in
- 8) Rotate bottle back down to below horizontal and disengage from cartridge
- 9) Shake bottle with finger firmly over end of spout
- 10) Repeat shake and pour process until no toner left in bottle



- 11) Clean up any spilled toner from around the hole
- 12) Put plug in
- 13) Reset your cartridge according to instructions on page 6
- 14) Put refilled and reset cartridge into printer and allow it to initialise



Three refills, and maybe then some

Our experience of refilling HL-L3230 cartridges suggests that 3 refills are normally possible. Bear in mind, though, that sooner or later you *will* have to retire toner cartridges as they wear out or succumb to deposits on critical components.

Some cartridges inexplicably give up the ghost early, probably due to small manufacturing imperfections. Others perform above and beyond the call of duty.

Other things the machine uses

Be aware that as well as toner cartridges, your printer also uses a **Drum Unit (DR-243CL)**, **Belt Unit (BU-223CL)** and a **Waste Toner Cartridge (WT-223CL)**.

All of these "user-replaceable" components can go wrong or start complaining about one thing or another. Find full information about these components in the User's Guide.



Safety Data Brother HL-L3230cdw type toner

Take maximum precaution when using a screwdriver as a lever: consider safety and protection of eyes and hands from sudden slippage or unexpected freeing of the tool.

Only to be used by a competent risk-aware adult. Not to be used by children. 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	Brother HL-L3230 type refill toner
Part no.	BRL3230BOTB, BRL3230BOTC, BRL3230BOTM, BRL3230BOTY
Supplier	U Refill Toner Ltd. Contact details as per page header

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	Unlikely to cause skin irritation
Eye contact	May cause irritation
Inhalation	Irritation to respiratory tract if exposed to large amounts of toner dust
Ingestion	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 to its bound form, is not believed to present this risk.

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	Rinse out mouth with water. Drink one or two glasses of water. If large quantity swallowed seek medical advice

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	Wear dust resistant safety goggles if there is danger of eye contact
Hands / skin	Wear protective gloves
Respiratory protection	Wear approved respirator for dust when exposure exceeds permissible limits
Additional measures	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.
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.
--

11 Transport information

General	Not regulated
---------	---------------

12 Other information

Labelling EU 67/458/EEC	
R & S phrases	Not required
Hazard symbol	Not required



Safe use of the copper melter



- 1) Use a weak flame only and experiment with the least temperature needed to melt your hole
 - 2) Do not heat the melter any more than absolutely necessary to melt plastic: if too hot, it could start a fire
 - 3) When the hole has been melted, extinguish all naked flames before pouring toner (toner can form an explosive dust-air mixture when suspended in air)
 - 4) Have fire-extinguishing equipment ready
 - 5) Use only in a work area free from flammable materials
 - 6) Wear heat-resistant gloves
 - 7) Take precautions to protect all body parts from burns
 - 8) Use safety goggles to protect the eyes
 - 9) Have an incombustible resting place for the melter when hot. For example, a ceramic tile or old oven-proof plate
-
- 10) Allow to cool naturally, do not plunge hot melter into cold water or liquids
 - 11) Hold with mole grips (sometimes known as locking pliers), but do not heat the jaws of the mole grips
 - 12) Not to be used by children
 - 13) Perform your own risk assessment: the onus is on you to evaluate the ultimate degree of risk
 - 14) If your risk assessment leads you to not want to proceed, please feel free to return this product for a full refund

Legal Notice

U Refill Toner Ltd. has made strident efforts to foresee possible sources of personal injury and detail them in the safety section of this document. However, it is foreseeable that all safety information is, in essence, incomplete and subject to change, revision and inaccuracy. You must therefore use your own judgement in evaluating the potential risks posed by refilling your toner cartridge, howsoever achieved - including the possible incompleteness or inaccuracy of currently conceived foreseeable risks.

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.



*Original and largest selling
do-it-yourself toner refill*

- ✓ half the cost
- ✓ half the CO₂
- ✓ defend the right to re-use

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. We've survived for over 27 years – fighting giant corporations that dwarf us – thanks to the trust placed in us by customers all over the world who were prepared to give refilling their own toner cartridges a go

Rest assured, no one at U Refill Toner ever takes that trust or our astonishingly beautiful home planet for granted

U Refill Toner Ltd. is not associated with or endorsed by any of the manufacturers referred to in any of its literature. Names of manufacturers, machines and part numbers are given as an aid to identification only. Names of manufacturers, machines and part numbers may be Trademarks of the respective manufacturer. All Trademarks hereby expressly acknowledged.

©® Ownership of all intellectual property relating to this work of literature has been asserted and secured. All International Intellectual Property Rights reserved. No reproduction, copying, image scanning, storing, translating into languages other than English or recording by any means in any form nor broadcasting or transmission through any medium of any part of these instructions is permitted by UK and international law. Used under licence.

Brother HL-L3230 Instructions © March 2019