# How to refill your HL-4040cn, 4050cdn or 4070cdw

Before use, familiarise yourself with the safety information on page 3.

Use maximum precaution when using screwdriver as a lever. Consider the possibility of accidental slippage and use of eye and hand protection.

# You can refill standard or high capacity - result is high capacity

Original cartridges come in standard or high capacity flavours. Our refill products are *high capacity*. You can refill any yield of cartridge with our product and it comes out as *high* capacity.

# If toner level is causing message, refill If countdown is causing message, reset

The machine has 2 triggers for the "Replace [colour] cartridge" message and accompanying refusal to print. Trigger 1 is the toner level. A light beam senses when the toner level has dropped to a certain point. This triggers the message and it's also the perfect time to refill.

Trigger 2 is a countdown which starts for a cartridge when you put a new *(or reset)* cartridge into the printer. This trigger will eventually fire regardless of how much toner is actually in the cartridge. It could trigger the message a few pages after you had just refilled for the second time, for example.

If trigger 1 (toner level) is causing the message, you want to refill.

If trigger 2, (countdown) is causing the message, you want to reset the cartridge and not refill.

So, how do you know if you're looking at a toner level or a countdown situation?

## First refill? Reset not needed.

# Subsequent refills: weigh, count or use logic and care

A reset isn't needed on the first refill of any original cartridge. At the end of their original cycle, cartridges always trigger the message by low toner level (trigger 1).

#### Weighing. If heavier than 615g, reset it. If lighter than 615g, refill it.

All cartridges, whatever their original yield type, weigh more or less 600g when the toner level trigger fires. We say "more or less" because this method of sensing is inherently inaccurate to + or - 15g.

So if you've got some fairly accurate scales and you've got the "Replace ...." message, but the target cartridge is **heavier than 615g**, you know the countdown has cut in. And you **reset** the cartridge.

Conversely, if you've got the "Replace ..." message and the cartridge is **lighter than 615g**, then it's almost certainly a low toner level issue. And you **refill** the cartridge.

#### Counting

When you refill, say, a yellow cartridge, you could jot down the machine page count. As long as you're not printing full page photos of bananas and daffodils, the toner you just put in should print at least 4,000 pages. So if you later see that the machine interrupts the yellow cartridge in less than 4,000 pages, you can be pretty sure the countdown triggered the message. And you **reset** the cartridge, but **don't refill**.

#### Logic and care

Logic dictates that if you just refilled a cartridge, but that didn't get rid of the message, then the message was in fact caused by countdown. So then you just reset it and, bingo!

So why not just refill whenever you get the message? Then just reset it if the refill alone didn't do the trick? This will in fact work OK most of the time. But, and it's big but: you run the risk of trying to refill a cartridge that is already almost full. Toner will spill out over your shoes, your carpet, your dog and overfilling can lead to other problems inside the machine.

So if you're going to do this, try just "experimentally refilling" with a small quantity of toner to see if you can get the level up enough cure the level trigger. If it doesn't work after a few tries, assume the cartridge is pretty full and move to a reset.

# Only do anything at all with the cartridge named in the message

Don't "top up" all the cartridges while "you're at it". For the reasons in the above section, it'll cause chaos.

#### How to refill

1. Find end of cartridge where sticker covers plug. Tear or cut off sticker.



- 2. Lever out plug with 3mm screwdriver. Use minimum force consistent with getting plug out.
- 3. Clean toner from plug with swab, apply some sealant to damaged part of plug and leave ready.
- 4. Shake unopened bottle vigorously for 5 seconds.

- 5. Open toner bottle and screw on spout.
- 6. To avoid leakage of micro fine toner, wrap any kind of tape around join between spout and bottle: selotape, brown parcel tape, gaffa tape etc.
- 7. Hold cartridge at 45 degree angle with one hand. Use other hand for bottle.







- 8. Keeping bottle horizontal, put spout into hole and bring cartridge and bottle up to vertical position.
- 9. Wait for a count of 10 for toner to flow in.
- 10. Return cartridge to 45 degrees. Rotate bottle down to horizontal and disengage from cartridge.
- 11. Shake bottle with finger firmly over end of spout.
- 12. Repeat 8 to 11 until no toner in bottle.
- 13. Clean around hole and interior surfaces with swab. Put plug back in, roughly marrying up slightly damaged surface of plug to slightly damaged interior of hole.
- 14. Make sure this photo sensor window and a similar one at opposite end of cartridge are completely clean. Clean with absorbent paper if necessary.

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### **Reset procedure**

See detailed sections of page 1 to fully appreciate when to use the reset procedure.

1) At opposite end of cartridge to plug. Take out 2 screws.





2) Gently separate end plate from cartridge. Avoid displacing cogs, which are free to drop off. White bush is most likely to drop off – make sure to replace it if it does.





- 3) Identify grey lug butted up against black protrusion.
- 4) Lift the grey disk and lug minimum necessary to get lug clèar of protrusion and then rotate anti-clockwise.
- 5) Allow lug to fall by itself into new position as shown.
- 6) Replace and screw on end plate.



# Safety Data Brother HL-4040 type toner

Use maximum precaution when using screwdriver as a lever. Consider the possibility of accidental slippage and use of eye and hand protection.

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-4040 type refill bottle                     |  |
|--------------|--|--|
| Part no.     | BR4040BOTB, BR4040BOTC, BR4040BOTM, BR4040BOTY         |  |
| Supplier     | U Refill Toner Ltd. Contact details as per page header |  |

#### 2 Hazards / Toxicology

| Routes of entry                    | Inhalation? Skin? Ingestion?   |
|------------------------------------|--|
| Health hazards (acute and chronic) | Possibility of scratching of eye surface due to physical abrasion.   |
| Signs and symptoms of exposure     | Irritation of eyes and respiratory tract may occur in heavy dust conditions  |
| Signs and symptoms of exposure     | Irritation of eyes and unusual discomfort of inhalation may occur in heavy dust condition.                               |
| Medical conditions aggravated by   | None known   |
| exposure                           |  |
| Fire and explosion                 | Dust may form explosive mixture when mixed with air. Avoid sources of ignition while pouring, handling and at all times. |

#### 3 Handling and Storage

| Storage            | Avoid excessive exposure to heat  |
|--------------------|---|
| Fire and explosion | Do not store next to strong oxidizers. Store in cool dry location. Eye protection and respirators |
|                    | may be required for bulk handling or where airborne dust is produced.                             |
| Eye protection     | Recommended   |

#### 4 Exposure controls and personal protection

| Ventilation                | Local exhaust ventilation recommended  |
|----------------------------|--|
| Respiratory protection     | Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate protection for given working conditions, level of airborne contamination and presence of sufficient oxygen. |
| Other protective equipment | Wear eye protection. Wear gloves. Wear protective overalls.  |
| Contaminated equipment     | Separate contaminated work clothing from street clothes. Launder before re-use. Remove this material   |
|                            | from your shoes and clean personal protective equipment.   |
| Comments                   | Never eat, drink or smoke in work areas. Wash at the end of each work shift and before eating,   |
|                            | smoking, applying cosmetics and using the toilet etc.  |

#### 5 First aid measures

| Eyes       | Flush with water. If irritation persists, get medical attention |
|------------|---|
| Skin       | Wash with soap and water  |
| Inhalation | Remove from exposure. Gargle with water                         |
| Ingestion  | Unlikely. Seek medical attention.                               |

#### 6 Ecology

| Ecotoxicity   | No data. |
|---------------|----------|
| Degradability | No data  |
| Accumulation  | No data  |

#### 7 Waste disposal

Dispose according to local and national regulations.

**Notice.** All safety information is given to help facilitate the safe use of this product and is based on known best practice and any information provided by 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.

# **Assumption of risk notice**

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.

# Please, tell three people what you've done



OK, we admit it. This is our begging act. Have you saved money by using our DIY kit? Did you feel a touch of pride as your cartridge did print again? Maybe you found some environmental satisfaction? Or perhaps you feel it should be refilled "because it's there".

We sincerely hope we've helped float your boat in some way. And if so, then please help our voice in the wilderness and tell at least three people about what you did with your empty cartridge. Why not send a link to urefilltoner.co.uk to some friends you know have printers?

The phrase "carbon footprint" hadn't been coined in 1992 when we started selling our trend-bucking "guerrilla re-cycling" products. Making just toner produces less C02 than making the toner plus the whole structure of a cartridge to put it in.





We're asking for your support to create a kind of benign chainreaction effect. Yes, we stand to make money from that, but we

believe that the battle to reduce CO2 output does have to be commercialised. That's to say, when the capacity of individuals to make voluntary self-sacrifice reaches a limit, what will take up the slack? In the same way that carbon big-foot companies need money to keep doing what they do, so does a carbon twinkle-toes.

Environmental organisations make us aware of a pyramid of priorities. Re-use, in the sense of directly using a resource again, is more beneficial than re-cycling (normally

taken to imply an industrial process such as re-pulping paper fibre).

So, one last time for the planet, please advocate urefilltoner.co.uk if you feel our existence is preferable to our non-existence. Keep refilling in the free world.

# 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 20 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 CO<sub>2</sub>

defend your consumer choices and right to reuse



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