Samsung M2022, M2022W refill instructions

Also for M2020, M2020W, M2026, M2026W, M2070, M2070W, M2070FW series printers and multifunctionals.
Before use, familiarise yourself with the melting tool guidance and safety information on pages 8 and 9.
Consider doing the refill on top of sheets of old newspaper in case of accidental spills.

Refill both starter cartridge and bought cartridge code MLT-D111S

The new machine arrives with a cartridge quoted as yielding 500 pages. Subsequently, Samsung want you to buy the MLT-D111S cartridge (quoted yield, 1,000 pages). You can use our method to refill either type of cartridge.

For M2020, M2022, M2026 laser printers without LED control panel ...

Ignore orange toner light (first blinking, then constant)
Refill at toner fade out

Ignore this light. Keep printing until fade out

At first, when you print with a new cartridge, the toner light (pointed out above) is **off**. After a while, it starts to blink. Just ignore the blinking light and keep printing.

Later on, the toner light comes on permanently. Ignore that too. Keep ignoring it as long as you have the printer. It does not interfere with your print jobs.

Then refill in response to *fade out* caused by actual lack of toner powder in the cartridge. Fade out develops in *progressively widening and whitening vertical stripes* as shown in these three prints ……..

When you can see you've got fade out, refill as shown on pages 3 and 4.

For M2070, M2070w and M2070fw multifunctionals with LED control panel

If your machine has a full control panel that resembles this …

1. Wait until the LED message panel

shows the message either "**Replace Toner Stop**" or "**Replace New Cartridge**" (you might also get a pop up message on your computer screen at the same time). The machine will refuse to print.

2. Press either left or right arrow on the control ring until the LED display shows "**Continue**"

3. Press **OK**

4. **Do not refill**

5. Carry on printing until you begin to see fade out on your prints

If the above 5 steps don't work, do this ....

Press Menu 🗒 until "System Setup"

Press OK

Press < or > until "Maintenance"

Press OK

Press < or > until "**CLR Empty Msg**"

Press OK

On some models, the Menu 🗒 symbol isn't there: in that case, do this ...

Press Setup

Press OK

Press < or > until "Machine Setup"

Press OK

Press < or > until "Initial Setup "

Press OK

Press < or > until "Maintenance"

Press OK

Press < or > until "**CLR Empty Msg**"

Press OK

In all cases, ignore any messages and carry on printing until you get fade out before refilling with toner.

Fade-out due to lack of toner develops in *progressively widening and whitening vertical stripes* as shown in these three prints ……..

When you get fade out, refill as on on pages 3 and 4

How to refill it

Be careful not to scratch the
green OPC drum or leave it resting on surfaces
Don't expose it to direct sunlight. Don't leave it in ambient light for more than a few minutes

If you have it, put on the orange plastic cover that arrives with a bought cartridge (doesn't come with the cartridge that arrives with the new printer)

Melt your hole (please see guidance on use and safety of melting tool on page 8)

Aim to melt in the centre of the convex curved surface
It's hard to get it spot on, but try to leave at least 4mm on both sides of the hole for tape to stick to
In this shot, we were off centre, but still had enough surface to get a good seal with the patch. When checked later after some printing, the patch had not leaked

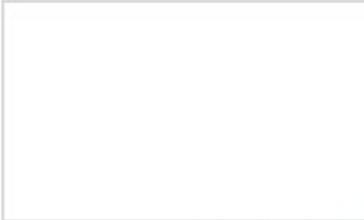|	
	Shake bottle before pouring Pour in refill toner holding cartridge at approx. 45 degree angle It normally takes 2 or 3 "shake and pours" to get all the toner in
	Clean surface around hole with alcohol swab and allow alcohol to dry off Cut a **30mm** patch from duct tape or any strong flexible adhesive tape that's wide enough
	Press tape down hard on the flat surfaces around the hole **Care!** The sealed hole is vulnerable to leaks because it is below the toner reservoir when the cartridge is in the machine. **Check the taped hole every now and then**: especially just after a refill. If any toner is escaping, remove the patch, clean the area and re-seal The orange toner light will stay on after the refill: just ignore it – forever

M2026, M2026W may need a chip at some point

After refilling the starter cartridge in an M2026W, we got the following message about half way through running the first refill ...

Samsung Printer Status

❌ Toner cartridge is not compatible. Check user's guide.

Samsung M2

* % value is est

And the printer wouldn't print.

After turning everything off and on again more than once and putting the cartridge in and out a few times, the printer mysteriously started printing again.

After running through another bottle of toner, we got this on the screen ...

Samsung M2020 Series

You have used this toner cartridge **approximately 557% longer than** its recomme
For more information regarding the recommended life cycle, please refer to the Supp

**Continuing to use this toner cartridge after its recommended life cycle may b
deterioration in the printing quality and cause problems such as leakage of t
or other defects.**

To prevent this, Samsung Electronics provides a **product protection function**. This
your printer from operating when it detects a toner cartridge that has excee
recommended life cycle.

When this function is used, you must replace the expired toner cartridges to a new
continue printing.

We recommend that you use genuine Samsung toner cartridge because som
Samsung toner cartridges such as refilled or remanufactured toner have exc
recommended life cycles. Using such toner cartridges may limit your warran
warranty services may not be performed on products that have used such tor

Would you like to use the product protection function?

(If you choose not to activate the product protection function, you will still receive notificatic
basis. Further, you may choose to provide Samsung with device information and informat
life cycle of the toner cartridge (Printer model name, serial number, installation date, tone
supplier ID). This information will be used as data to help Samsung provide better user e
Under no circumstances shall we collect any information other than the information listec
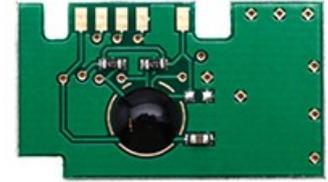
Obviously, we chose "No" and "OK".

We completed that refill run and now we're into a third with no further problems.

But the bottom line is that there has been shift in behaviour between the M2026 and all the other models.

So if you're using the M2026 or M2026W and you can't get around the above messages (or others) you'll have to buy and install a compatible micro chip to be able to carry on.

These chips have been consciously left out of this Starter Kit to save money for the vast majority of users who will not need one. And, indeed, at the time of writing it's a moot point whether, as an M2026 user, you need one either. But as a last resort, they are available.
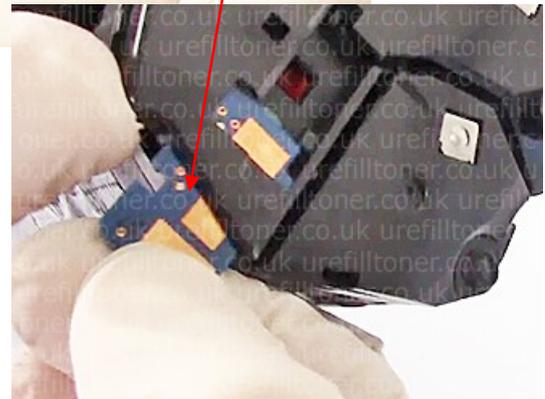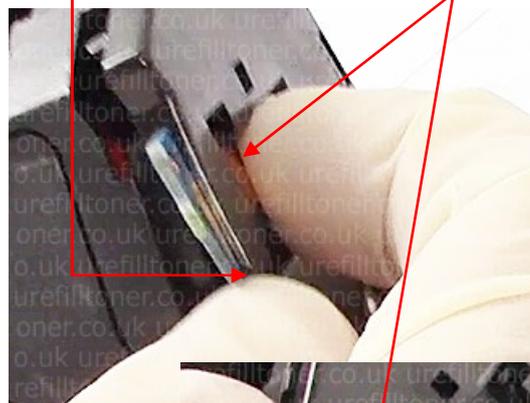
How to change the chip

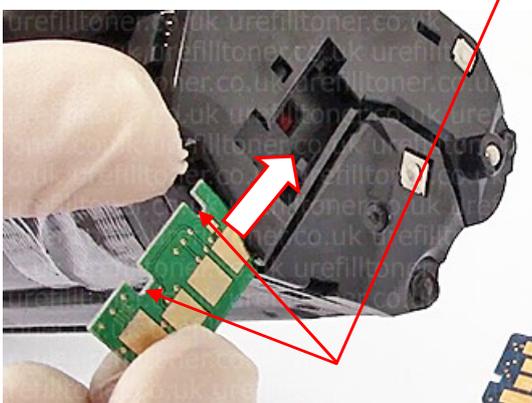1. Find the chip at one end of the cartridge

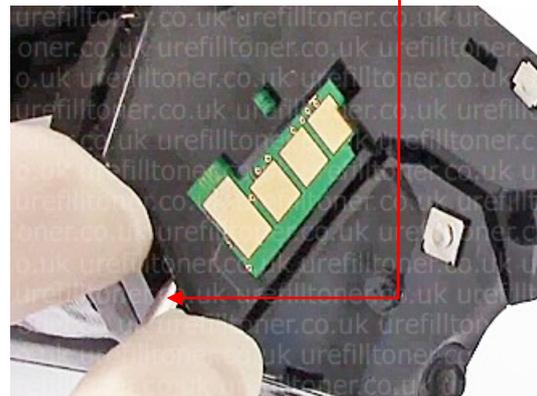2. Bend the end plate up slightly and slide chip out

3. Slide new chip in.
   Carefully note correct orientation of notches

4. Push into final position with small screwdriver. If it's right, it will go in easily and "feel right"

Waste overflow could start during the 5th refill and beyond

As these machines print, they produce waste toner. It's sneakily stored inside an empty chamber inside the toner cartridge. If the waste fills up completely, you'll start to get "waste streaks" vertically down the page, like these

You can also see the corresponding excess waste that can no longer be cleaned from the drum

We found that for the M2022 family, the earliest this could happen would be during the 5th refill of the starter cartridge and even later for a bought cartridge (which has a bigger waster compartment).

So the preventative route, if you want to empty the waste, is to do it at the **end of the 4th refill**.
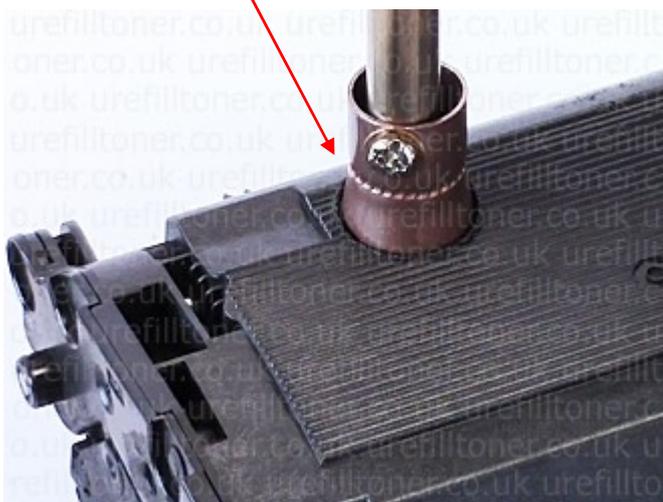
If you like to wing it, it **is** just about viable to deliberately wait for the first signs of waste streaks and empty the waste at that point. Don't delay though. Very soon after the appearance of waste streaks, the compacted waste scratches the OPC drum and the cartridge is rendered useless - whether you then empty the waste or not.

We say "if" you want to empty the waste, because it's your call. Emptying the waste is messier than just refilling.

One final hacking weapon to do with waste. Often the waste toner "bridges" across a fraction of the whole length of the waste compartment. This means that you start to get the waste streaks even though the compartment isn't full as a whole. You can normally get rid of the streaks by gently tapping the corrugated part of the cartridge and shaking from side to side. If it was a bridge causing the streaks - and you succeeded in breaking the bridge and distributing the toner more evenly - you'll have got rid of the streaks: at least until another bridge forms or it does in fact fill up completely.

If you're up for emptying the waste – and remember it's a lot messier than just refilling - here's how it's done …

1) Melt a hole here

2) Shake the waste directly into an outside bin, but do not expose the green OPC drum to direct sunlight
3) Clean up the surfaces of the cartridge
4) Seal with duct tape

Use and safety of the melting tool

The tool needs at least 5 minutes to reach an efficient melting temperature.

To melt a hole, apply a light force similar to pressing on paper with a ballpoint pen. Ease off the pressure as the tool sinks into the plastic.

During the first 6 minutes of the first ever use, smoke will come out of the heated part of the tool as manufacturing lubricants burn off. This is normal.
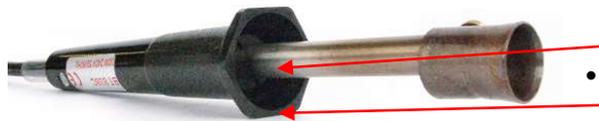
Use a screwdriver to push out the residual plastic plug while the tool is still hot.

Occasionally, the plastic plug falls inside the cartridge. Try and get it out using tweezers or pliers if you can. A piece of plastic this size inside the toner compartment doesn't usually do any harm, but be aware that it's there and retire the cartridge if it shows signs of physically jamming.

urefilltoner.co.uk

Important safety information

- To be used only by a competent, risk-aware adult.
- Use only in a well-ventilated situation. As with the combustion of any organic substance (such as petrol or tobacco) a cocktail of gases can be produced and some of these are harmful or at least irritant.
- All metal parts of the tool get dangerously hot. Never touch any metal part of the tool, including the steel shaft near the plastic handle.
- When not in hand, the tool is designed to be rested at an angle created by the flange of the handle, keeping the hot parts suspended above your surface. But take care that the power cable doesn't force the handle to rise and the hot end of the tool to dip.
- Take care not to melt through the tool's own electric cable.
- Do not use the tool with the end-piece or blank filler tip removed.
- Turn off and unplug the tool as soon as you've melted your hole. Leave to cool at least 2 metres away from your toner pouring area.
- Do not leave on for more than 30 minutes at a time.
- After use, allow the tool to cool down naturally. Do not immerse in water.
- Take all precautions for the use of a powered hand tool. Use eye and hand protection.

Assumption of risk notice

We ourselves have no hesitation in researching and refilling cartridges using the melting technique in a well-ventilated room. However, the company gives no warranties, neither explicit nor implicit, as to the safety of melting holes in toner cartridges or the use of the melting tool. Any activity or process has an element of risk. The onus is on you, the purchaser, to assess any possible risk, including the inaccuracy or incompleteness of currently available information. If you decide not to go ahead, return the product to us and we'll cheerfully refund your money. This offer is additional to your statutory rights.

©® Ownership of all intellectual property relating to the melting tool has been asserted and secured.

Safety Data

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	Samsung M2022 type refill toner
Part no.	SAM2022BOT
Supplier	U Refill Toner Ltd. Contact details as per page header

2 Hazards identification

Classification	Not known to be classified as hazardous.
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 it 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 believed to be classified for acute oral toxicity according to EU Directive 67/458/EEC and 1999/45/EC
Inhalation toxicity	No data
Eye irritation	Not believed to be classified as irritant according to OSHA HCS and EU 67/548/EEC as amended
Sensitization	Not believed to 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.

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 22 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_2
- ✓   don't be a doormat for big manufacturers

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

Samsung M2022 Instructions © April 2014
Revised October 2014 re: multifunctional control panel
Revised May 2016 re: M2026 messages and chip behaviour