

EXAMPLE

Canon

Dealing with Waste Toner during servicing

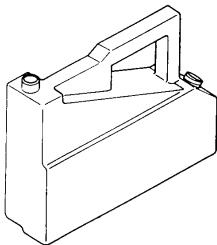
**A Safe
System of Work for service
technicians**

HANDLING WASTE TONER

The following procedures have been designed to cater for the safe service handling needs of every type of waste toner container throughout the Canon range of copiers C.L.C/NP & GP.

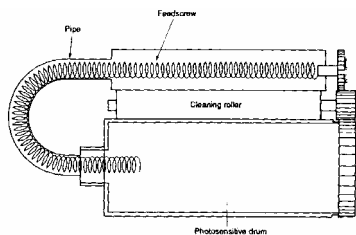
These can be divided into six different types and “best practice” methods will be described separately for each type.

Type 1 - Bottle



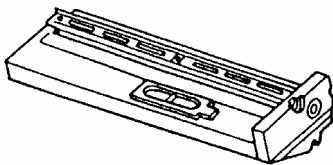
Plastic bottle containers supplied as an integral part of the product and service part replaceable.

Type 2 - Photosensitive Drum Container



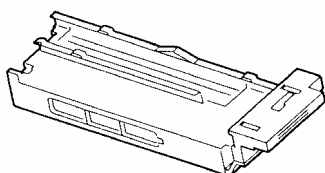
The photosensitive drum within the drum unit serves as the container itself, all waste toner is confined within the cylinder.

Type 3 - Drum Unit Containers with Small Access Stopper



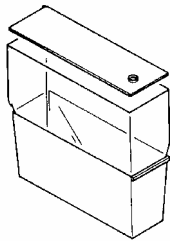
A void behind a small diameter photosensitive drum is used to confine all waste toner within the drum unit, and accessible via a small nylon stopper.

Type 4 - Drum Unit Containers with Large Access Stopper/Cover



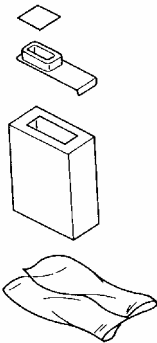
As with type 3, except the access stopper is larger or the top cover of this drum unit is removable.

Type 5 - Large Capacity Waste Toner Boxes



Polythene lined plastic/cardboard boxes, supplied as an integral part of the product and service part replaceable. This also includes standard cardboard waste toner boxes.

Type 6 - User Replaceable Containers (Non Service Handling)



Disposable containers supplied to the customer along with appropriate handling instruction for the user to seal and dispose of as and when required.

Best Practice Recommendations for Emptying Waste Toner Containers

Type 1

All Type 1 containers incorporate a screw cap large hole port for emptying purposes and a smaller inlet hole which will serve as a breather to allow air displacement when inverted during emptying. This container should be checked regularly (P.M. interval) and emptied as necessary before it becomes half full, using the following method:-

Method

- Step 1 Remove screw cap from large hole, then cover the small breather hole with a safe wipe secured with an elastic band (this will prevent 'blow back').
- Step 2 Secure the open end of the special waste bag Part No. UK-PART-142 over the large hole with an elastic band. Ensure the bag is secured and that a good seal is achieved.
- Step 3 With the bottom of the bag supported on a flat surface, carefully invert the bottle until all contents have transferred into the waste bag.
- Step 4 With the bottle in the upright position, carefully remove the waste bag allowing the elastic band to close the neck of the bag instantaneously. The waste bag can now be knotted at the neck and prepared for disposal. **N.B.** there should be no need to use a second bag for extra security since the bag material has a leak-proof characteristic.
- Step 5 Remove the safe wipe, and re-fit the container to the machine.

Type 2

All drum cylinder waste containers of this type incorporate a blind hole at one end, through which the toner will be extracted.

Method

- Step 1** Remove the drum cylinder from the drum unit taking care not to spill any of its contents.
- Step 2** Place the open end of special waste bag Part No. UK-PART-142 over the open hole end of drum cylinder and secure in place at least half way up the length of the cylinder with an elastic band.
- Step 3** With the bottom of the bag supported on a flat surface carefully invert the drum and with minimal vigour agitate the cylinder until all contents have transferred into the waste bag.
- Step 4** With the drum cylinder returned to a horizontal position, carefully remove the waste bag allowing the elastic band to close the neck of the bag instantaneously. The waste bag can now be knotted at the neck and prepared for disposal.

N.B. There should be no need to use a second bag for extra security since the bag material has a leak-proof characteristic.

Type 3

Due to the position and small sized opening in this type, it is not recommended that manual emptying into any kind of bag be attempted. However, vacuuming is recommended as follows:-

Special Tools Required

- A suitable vacuum cleaner (for definition of suitable see your Health & Safety Guide 7.6.2)
- A plastic nozzle for use with above vacuum cleaner which meets the following specification:-
 - i. At least 150mm in length
and
 - ii. A maximum external diameter of 15mm.
 - iii. Characteristics = flexible.

N.B. These are available for the CONVAC Vacuum (UK Part Number UK-4605-00T).

Method

- Step 1 Holding this unit with the stopper in the upright position, remove the stopper taking care not to disturb the contents unduly given that it may be quite full.
- Step 2 With the vacuum switched on gradually slide the special nozzle in through the access hole towards one end of the unit, then slowly withdraw it and slide back in towards the opposite end of the unit. There should be no need for excessive agitation or repetition of these actions.
- Step 3 When the waste contents are fully removed the stopper can be replaced. Ensure stopper is securely fitted.

Type 4

Due to the position of the opening in this type it is not recommended that manual emptying into any kind of bag be attempted. However, vacuuming is recommended using much the same method as Type 3 with the following exceptions:-

- Apart from the access hole and stopper being larger, the top of this unit may be removable (2 or 4 screws) one or both of these factors may negate the need for the special nozzle.
- If the top of this unit is removed care must be taken to employ a steady vacuuming operation using a conventional plastic nozzle to avoid excessive movement/disturbance of the waste toner contents.
- **‘Emergency Emptying Method’** If type 3 & 4 drum units are to be emptied without the use of a vacuum, extreme care should be taken. A suitable plastic bag should be held tightly around the drum unit, encompassing the access hole. The unit should then be gently shaken to remove the waste toner, depending upon the design of the unit some toner will contaminate the drum. If this occurs the excess can be removed with the use of a brush (not a blower brush). This method will also leave toner on the unit which again will require cleaning. For Health and Safety reasons this method should only be used in extreme circumstances as the risk from toner dust contamination the air and the risk of a serious spillage is greatly increased.

Type 5

This type of container is designed for a maximum capacity of 1 million copies worth of waste toner, however it must not be allowed to fill to maximum capacity. It is for this reason Service Manuals recommend checking and emptying at 250,000 copy intervals, this coincides with the preventative maintenance visit.

N.B. Type 5 containers are held in stock under the following descriptions and part numbers, the boxes are FA4-1491-0UK and the Polythene liners FA4-1492-000 for NP4000/5000 series.

- Step 1 Gently slide the toner box out of the machine and open the lid for inspection.
- Step 2 Carefully draw the edges of the Polythene bag insert together, taking care to expel as much air from the bag as possible but without disturbing the toner contents unduly.
- Step 3 Carefully remove all air, seal the bag by either tying the neck or using a strong elastic band. Then remove the bag from the box.
- Step 4 The sealed bag should now be placed and sealed in a special waste bag Part No. UK-PART-142 for disposal.
- Step 5 Fit a new box liner (service spare part) re-fit the box lid and return it to the machine.

Type 6

As stated earlier, these type have been designed for user disposal and as such may well never require 'service handling'. However should the need arise the handling instruction found with the container packages should be closely followed. This may differ slightly product to product.

Disposal Instructions

Once the waste has been prepared for disposal,

- Sealed in waste bag

- Contained within drum unit types 3 and 4 and being replaced.

or

- Sealed in a waste toner receptacle.

It can now be safely disposed of in accordance with local authority regulations (see your Health & Safety Guide 7:6.2). Due to local variances this must first be checked with the customer, before using their disposal facilities.

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