

# **Disassembly of Waste Electrical and Electronic Equipment (WEEE) Manual**

EU Waste Electronic and Electrical Equipment Directive require producers to provide information of the different electronic and electrical materials and components found in their products at its end-of-life, and disassembly references to treatment and recycling facilities.

1. Product information
2. Materials and components list for selective treatment
3. Disassembly tools
4. Disassembly references

The following information is intended only for the use of recognized treatment and recycling facilities.

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## **Section 1: Product information**

**Model name(s)** — The product models are group together in series and are mechanically equivalent.

### **Lexmark MSx31**

MS331dn, B3340dw, MS431dn, MS431dw

### **Lexmark MXx31**

MX331adn, MX431adn, MX431adw,  
MB344adw

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## Section 2: Materials and components list for selective treatment

**Table 2:** Materials and components list for selective treatment

Description	Count	Notes
Polychlorinated biphenyls (PCB) containing capacitors	0	N/A
Mercury containing components, such as switches or backlighting lamps	0	N/A
Batteries	1	***** <u>Total Count = 1</u> ***** Lithium Manganese Oxide coin cell located on the Controller card
Printed circuit boards greater than 10 cm <sup>2</sup>	multiple	***** <u>Minimum Count = 8</u> ***** For details, see <a href="#">Annex B</a> ***** <u>Options:</u> 1 – 550 Sheet Tray ***** Note: Fax is standard for MX-B427W
Toner cartridges, liquid and pasty, as well as colour toner	2	1 – Toner cartridge 1 – Imaging unit
<u>Plastic component(s)</u> that may contain BFR (brominated <sup>§</sup> flame retardants)	multiple	***** <u>Minimum count= 16</u> ***** For details, See <a href="#">Annex A</a> ***** <u>Options:</u> <u>+2</u> – for each 550 Paper handling *****
Note (§) - This product may contain plastic parts with brominated flame retardants. Recycler should treat these parts separately. See section 4.3 Disclaimer.		
Asbestos waste and components which contain asbestos	0	N/A
Cathode ray tubes	0	N/A
Chlorofluorocarbons (CFC), Hydrochlorofluorocarbons (HCFC) or Hydrofluorocarbons (HFC), Hydrocarbons (HC)	0	N/A
Gas discharge lamps	0	N/A
Liquid Crystal Display (LCD) greater than <u>100 cm<sup>2</sup></u> and those back-lighted with Gas discharge lamps	0	N/A
External electrical cables	1	Power cord located on the back lower left quadrant
Components containing refractory fibres	0	N/A
Components containing radioactive substances	0	N/A
Electrolyte capacitors containing substances of concern ( <i>capacitors with height &gt; 25 mm, diameter &gt; 25 mm or proportionately similar volume</i> )	1	Capacitor located on Power Supply
Electrical and Electronic (EE) Customer Replaceable Paper handling devices	multiple	See Customer Replaceable Paper handling devices For details, See <a href="#">Annex C</a>
Electrical and Electronic (EE) Customer Replaceable Internal/External Card options	multiple	See External Card options For details, See <a href="#">Annex D</a>

## **Section 3: Common Tools for Disassembly**

**Table 3.1** - Disassembly tools

<b>Item</b>	<b>Description</b>
<b>1</b>	#2 Phillips screwdriver, magnetic
<b>2</b>	Wire cutter
<b>3</b>	E-clip puller or small flat-head screwdriver
<b>4</b>	Standard slotted head screwdriver





## **Section 4: Disassembly references**

### **4.1 Removal procedure(s)**

WEEE materials and components removal procedures are available upon request.

Please Contact: [recycling@lexmark.com](mailto:recycling@lexmark.com)

### **4.2 Graphical illustration of material's and component's location**

-  LCD > 100 cm<sup>2</sup>
-  PCBs > 10 cm<sup>2</sup>
-  Printer components containing Brominated flame retardants
-  Battery

**Please note:** Graphic illustrations contained in this document may differ slightly from actual components

### **4.3 Disclaimer**

#### **Statement on WEEE Bromine Levels**

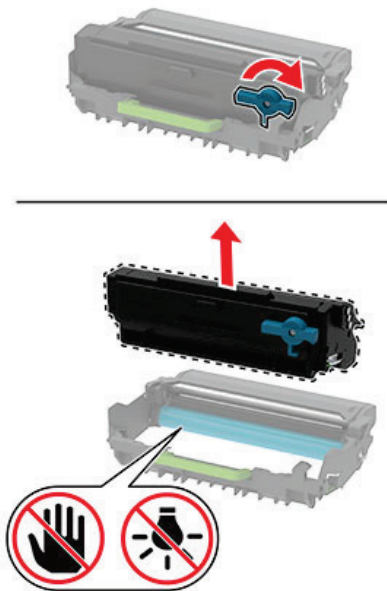
Manufacturer is compliant with the European Directive 2012/19/EU and European Commission's mandated technical specification CLC/TS 50625-3-1:2015 stating that plastic containing brominated flame retardants (BFR) must be removed from any separately collected WEEE (Article 8, Annex VII) if total bromine concentration in the fraction is known to be >2000 ppm, or expected to be >2000 ppm, or if it is not declared. Concentrations of bromine <2000 ppm are acceptable for reuse and do not require separation, so that the re-use and recycling of components or whole appliances is not hindered per Annex II, Section 3 of the WEEE Directive (2002/96/EU), and Annex VII, Section 3 of the WEEE Directive (2012/19/EU).

## Section 5: Supplies

- LCD > 100 cm<sup>2</sup>
- PCBs > 10 cm<sup>2</sup>
- Printer components containing Brominated flame retardants
- Battery



**Figure 5.1:** Toner Cartridge



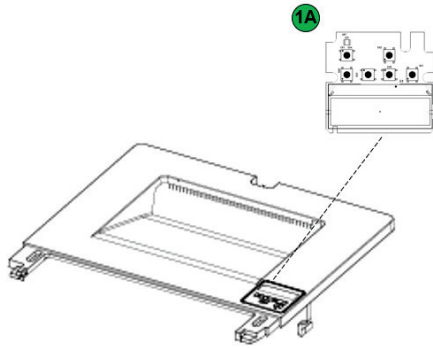
**Figure 5.2:** Imaging Unit

**Table 6: Supplies** – Printed Circuit Boards >10cm<sup>2</sup> and Plastic with Brominated flame retardants

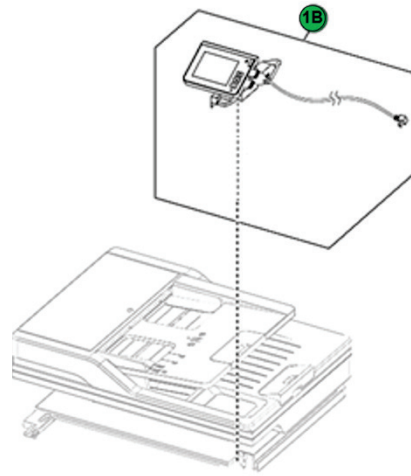
Item	Description
--	None
<b>Table Component Count</b> (without options)	
LCD>100cm <sup>2</sup>	= 0
PCBs>10cm <sup>2</sup>	= 0
BFR Plastics	= 0
Battery	= 0

## Section 6: Control Panel

- LCD > 100 cm<sup>2</sup>
- PCBs > 10 cm<sup>2</sup>
- Printer components containing Brominated flame retardants
- Battery



**Figure 6.1:** 2-line LCD Control Panel



**Figure 6.2:** 2.8" LCD Control Panel

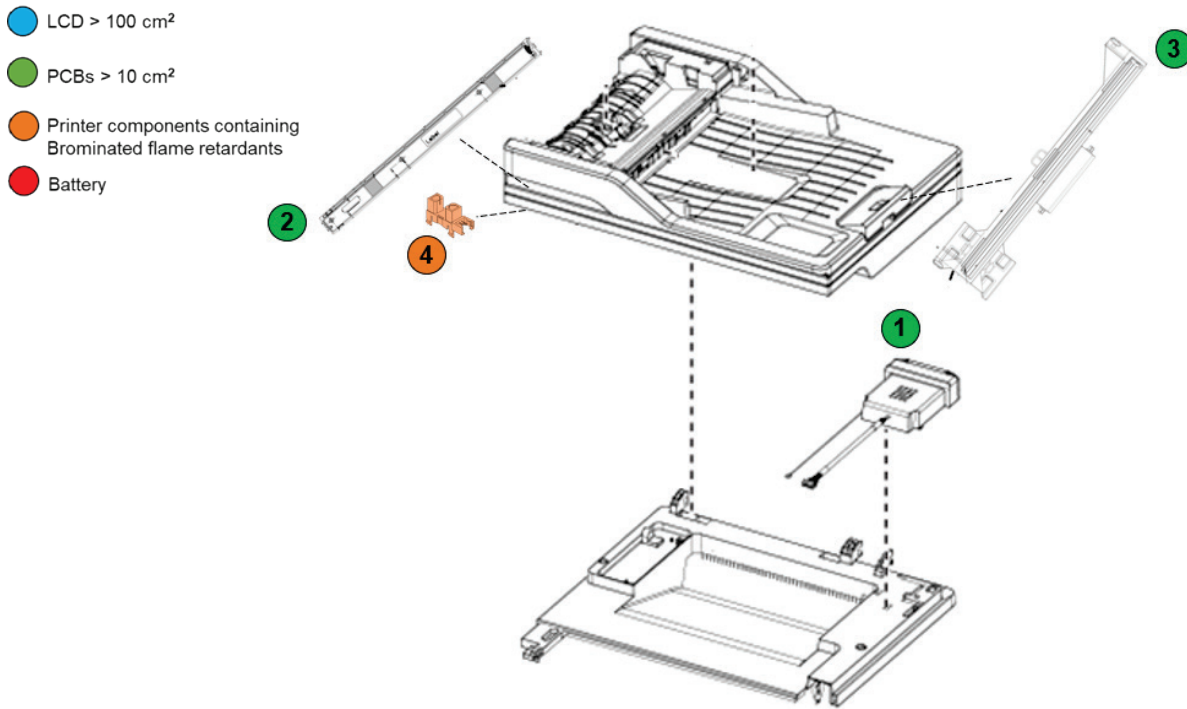
**Table 6:** Control Panel - Printed Circuit Boards >10cm<sup>2</sup> and Plastic with Brominated flame retardants

Item	Description
1A	Control panel board in Control panel assembly
1B	2 Line Operator panel display assembly

**Table Component Count** (*without options*)

LCD>100cm<sup>2</sup> = 0  
 PCBs>10cm<sup>2</sup> = 1  
 BFR Plastics = 0  
 Battery = 0

## Section 7: Scanner



**Figure 7.1:** Imaging ADF

**Table 7:** Scanner - Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

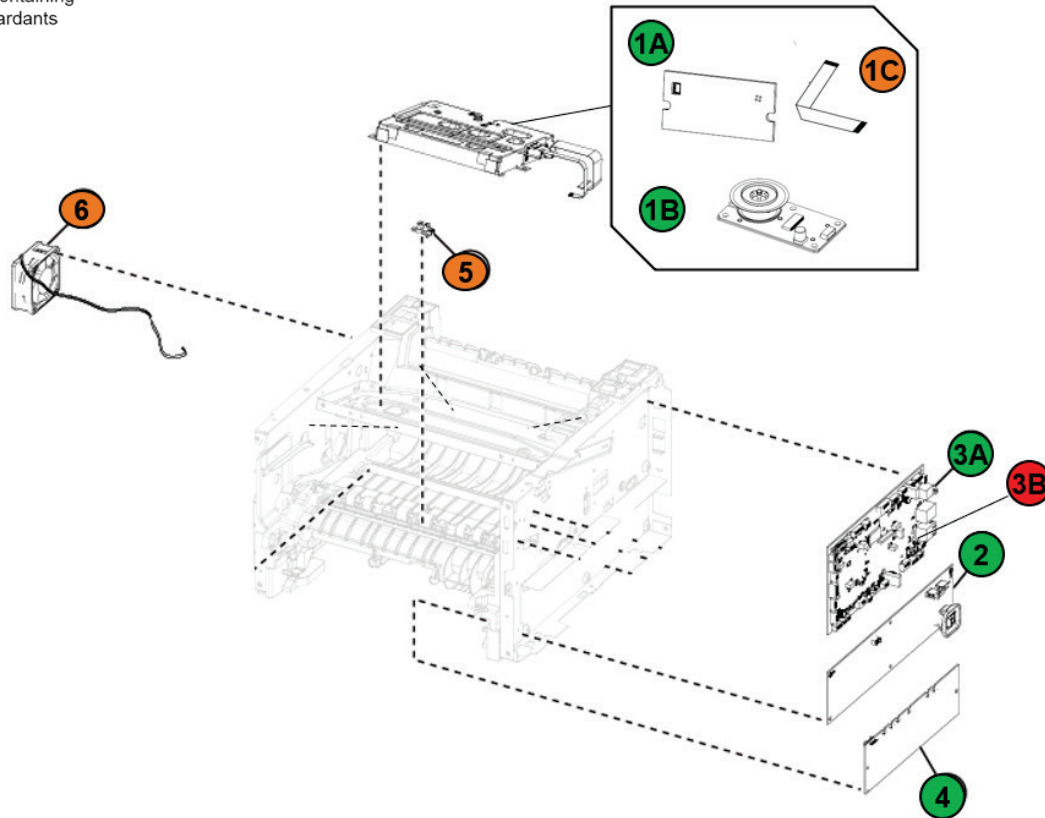
Item	Description
1	Fax Card
2	CIS Image sensor ADF within ADF Scanner
3	CIS Image sensor Flatbed within Flatbed scanner assembly
4	Sensor:ADF

**Table Component Count** (without options)

LCD>100cm<sup>2</sup> = 0  
 PCBs>10cm<sup>2</sup> = 3  
 BFR Plastics = 1  
 Battery = 0

## Section 8: Electronics

- LCD > 100 cm<sup>2</sup>
- PCBs > 10 cm<sup>2</sup>
- Printer components containing Brominated flame retardants
- Battery



**Figure 8.1:** Electronics

**Table 9:** Electronics - Printed Circuit Boards >10cm<sup>2</sup> and Plastic with Brominated flame retardants

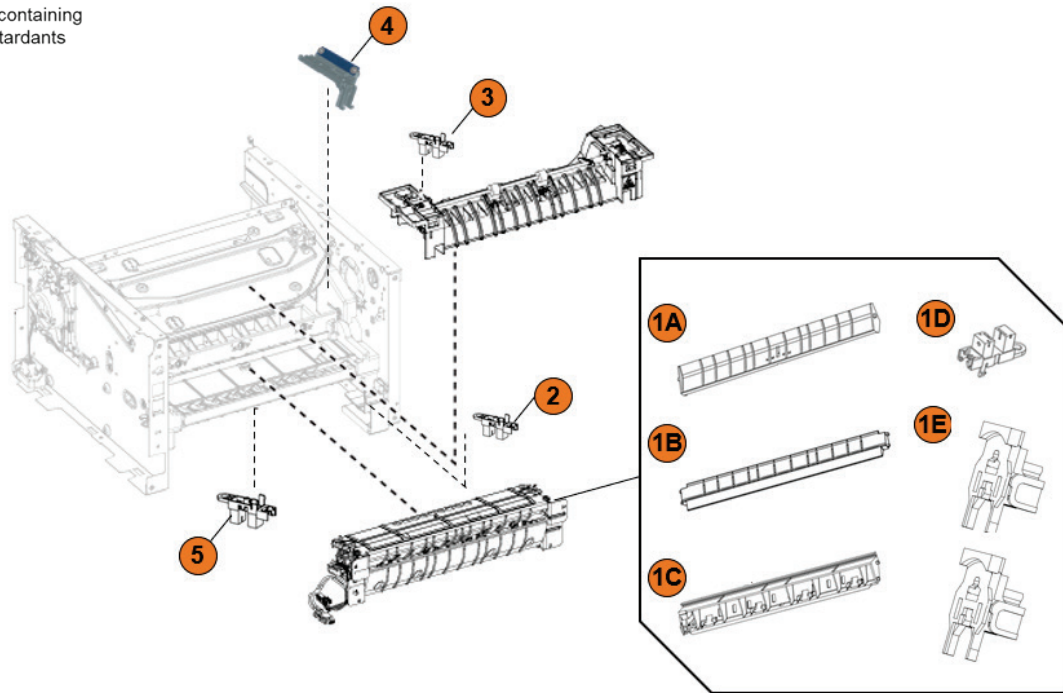
Item	Description
1A	Printhead PCBA
1B	Printhead Driver PCBA
1C	PrintheadTape
2	LVPS
3A	Controller board
3B	Battery
4	HVPS
5	Sensor (input) 2x
6	Main fan

**Table Component Count (without options)**

LCD>100cm<sup>2</sup> = 0  
 PCBs>10cm<sup>2</sup> = 5  
 BFR Plastics = 3  
 Battery = 1

## Section 9: Fuser

- LCD > 100 cm<sup>2</sup>
- PCBs > 10 cm<sup>2</sup>
- Printer components containing Brominated flame retardants
- Battery



**Figure 9.1:** Fuser

**Table 9:** Fuser - Printed Circuit Boards >10cm<sup>2</sup> and Plastic with Brominated flame retardants

Item	Description
1A	Guide - Lower Exit
1B	Guide – Entry
1C	Guide - Upper Exit
1D	Sensor Photo Interrupter
1E	Edge aligner guide (2x)
2	Sensor (input)
3	Sensor (Bin full)
4	Sensor (TDS)
5	Sensor (Photo)

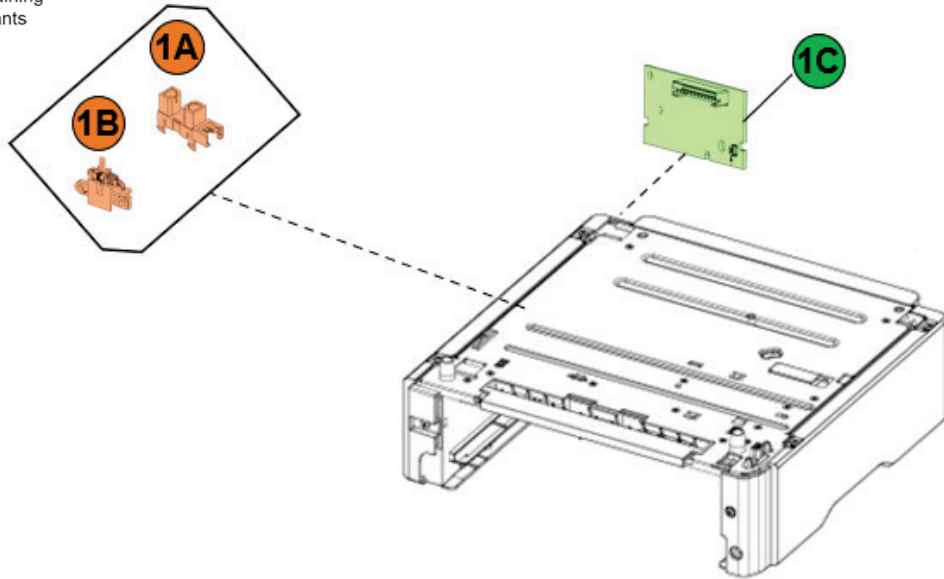
**Table Component Count** (without options)

LCD>100cm<sup>2</sup> = 0  
 PCBs>10cm<sup>2</sup> = 0  
 BFR Plastics = 10  
 Battery = 0



## Section 10: 550-sheet optional tray

- LCD > 100 cm<sup>2</sup>
- PCBs > 10 cm<sup>2</sup>
- Printer components containing Brominated flame retardants
- Battery



**Figure 10.1:** 550 sheet optional tray

**Table 10:** 550 sheet optional tray - Printed Circuit Boards >10cm<sup>2</sup> and Plastic with Brominated flame retardants

Item	Description
1A	Sensor (photo interrupt)
1B	Sensor (Trailing edge)
1C	Optional PHO cardt

**Table Component Count** (*without options*)

LCD>100cm<sup>2</sup> = 0  
 PCBs>10cm<sup>2</sup> = 0  
 BFR Plastics = 0  
 Battery = 0

**Annex A** – Printer components with Brominated<sup>S</sup> Flame Retardants

Item	Description	Parts Marking	Qty	MSx31	MXx31	Location
1	Main fan	N/A	1	X	X	<a href="#">Electronics</a>
2	Printhead tape	N/A	1	X	X	<a href="#">Electronics</a>
3	Sensor (input)	N/A	2	X	X	<a href="#">Electronics</a>
4	Main fan	N/A	1	X	X	<a href="#">Electronics</a>
5	Guide - Lower Exit	PET (GF+MD) 4	1	X	X	<a href="#">Fuser</a>
6	Guide – Entry	PET (GF+MD) 4	1	X	X	<a href="#">Fuser</a>
7	Guide - Upper Exit	PET (GF+MD) 4	1	X	X	<a href="#">Fuser</a>
8	Sensor Photo Interrupter	N/A	1	X	X	<a href="#">Fuser</a>
9	Edge aligner guide (2x)	N/A	2	X	X	<a href="#">Fuser</a>
10	Sensor (input)	N/A	1	X	X	<a href="#">Fuser</a>
	Sensor (Bin full)	N/A	1	X	X	<a href="#">Fuser</a>
	Sensor (TDS)	N/A	1	X	X	<a href="#">Fuser</a>
	Sensor (Photo)	N/A	1	X	X	<a href="#">Fuser</a>
11	Sensor: ADF	N/A	1		X	<a href="#">Scanner</a>
12	Sensor (photo interrupt)	N/A	1	optional	optional	<a href="#">550 sheet optional tray</a>
13	Sensor (Trailing edge)	N/A	1	optional	optional	<a href="#">550 sheet optional tray</a>
<b>Minimum Count (without options) =</b>			<b>16</b>			

**Annex B** – Printed Circuit Boards >10cm<sup>2</sup>

Item	Description	Qty	MSx31	MXx31	Location
1	Printhead PCBA	1	X	X	<a href="#">Electronics</a>
2	Printhead driver PCBA	1	X	X	<a href="#">Electronics</a>
3	LVPS	1	X	X	<a href="#">Electronics</a>
4	Controller board	1	X	X	<a href="#">Electronics</a>
5	HVPS	1	X	X	<a href="#">Electronics</a>
6	CIS Image sensor ADF	1		X	<a href="#">Scanner</a>
7	CIS Image sensor Flatbed	1		X	<a href="#">Scanner</a>
8	Fax Card	1		X	<a href="#">Scanner</a>
9	PHO card	1	optional	optional	<a href="#">550 sheet optional tray</a>
<b>Minimum Count (without options) =</b>		<b>8</b>			

**Annex C** – Electrical and Electronic (EE) Customer Replaceable Paper handling devices

Item	PN	Description	MSx31	MXx31	Locations
1	41X2612	550-sheet tray	X	X	Paper handling devices

**Annex D** – Electrical and Electronic (EE) Customer Replaceable Internal/ External Card Options

Item	PN	Description	MSx31	MXx31	Locations
1	27X6410	MarkNet N8372 802.11 a/b/g/n/ac wireless print server (MX431, MB3442, XM1342)		X	Attached to Controller board