

## 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.

The disassembly information for this product has been prepared for use by a recognized treatment or recycling facility and is not intended to be used by others.

- 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 treatment and recycling facilities.

#### 1. Product information

Model name(s)—Indicate all model name(s) within the product family

#### Model name

#### Lexmark MS310 series -

Lexmark MS310d, Lexmark MS310dn, Lexmark MS312dn, Lexmark MS315dn, Lexmark MS317dn

#### Lexmark MS410 series -

Lexmark MS410d, Lexmark MS410dn, Lexmark MS415dn (Lexmark M1140, Lexmark M1140+)

#### Lexmark MS51x series -

Lexmark MS510dn ((Lexmark M1145), Lexmark MS517dn

#### Lexmark MS61x series -

Lexmark MS610dn , Lexmark MS610dtn, Lexmark MS610de (Lexmark M3150), Lexmark MS617dn, Lexmark M1145

#### Lexmark MX31x series -

Lexmark MX310dn, Lexmark MX317dn

#### Lexmark MX41x series -

Lexmark MX410de, Lexmark MX417de

#### Lexmark MX51x series -

Lexmark MX510de, Lexmark MX511de (Lexmark XM1145), Lexmark MX511dte, Lexmark 511dhe, Lexmark MX517de

#### Lexmark MX61x series -

Lexmark MX610de, Lexmark MX611de (Lexmark XM3150), Lexmark MX611dte, Lexmark MX611dhe, Lexmark MX617de

<sup>\*</sup> Add rows as needed

## 2. Materials and components list for selective treatment

| Items  | Quantity | Notes   |
|--|----------|---|
| Polychlorinated biphenyls (PCB) containing capacitors  | 0        | N/A   |
| Mercury containing components, such as switches or backlighting lamps  | 0        | N/A   |
| Batteries  | 1        | Lithium Manganese Dioxide coin cell located on the Controller card in Lexmark MS310, MS410, MS510, MS610, MX Series   |
| Printed circuit boards greater than 10 cm <sup>2</sup>   | multiple | 5 – All Lexmark MS series 7 – Lexmark MX31x, MX410, MX51x 8 – Lexmark MX61x series  Paper handling devices: 1 – 250/ 550 Sheet tray 2 – MX61x Staple finisher  See details in Annex C |
| Toner cartridges, liquid and pasty, as well as colour toner  | 2        | <ul><li>1 – Toner cartridge</li><li>1 – Imaging unit</li></ul>  |
| Plastic containing brominated flame retardants   | multiple | 15 – Lexmark MS31x, MS410 18 – Lexmark MS51x, MS61x and all MX Series models  See details in Annex A and Annex B  |
| 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 100 cm <sup>2</sup> 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 (capacitors with height > 25 mm, diameter > 25 mm or proportionately similar volume) | 1        | Capacitor located on Power Supply   |
| Electrical and Electronic (EE) Customer Replaceable Paper handling devices   | multiple | See details in <u>Annex D</u>   |
| Electrical and Electronic (EE) Customer Replaceable Internal/External Card options   | multiple | See details in Annex E  |

#### 3. Disassembly tools

#### **Item Description**

#2 Phillips screwdriver, magnetic

Wire cutter

E-clip puller or small flat-head screwdriver

Standard slotted head screwdriver

#### 4. Disassembly references

#### 4.1. Removal procedure(s)

WEEE materials and components removal procedures are available upon request. Contact: <a href="mailto:recycling@lexmark.com">recycling@lexmark.com</a>

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

- 1 LCD >100 cm2 are identified with cyan-filled boxes
- PCBs >10 cm2 are identified with green-filled boxes
- Printer components containing Brominated flame retardants are identified with orange-filled boxes

## **Toner Cartridge**

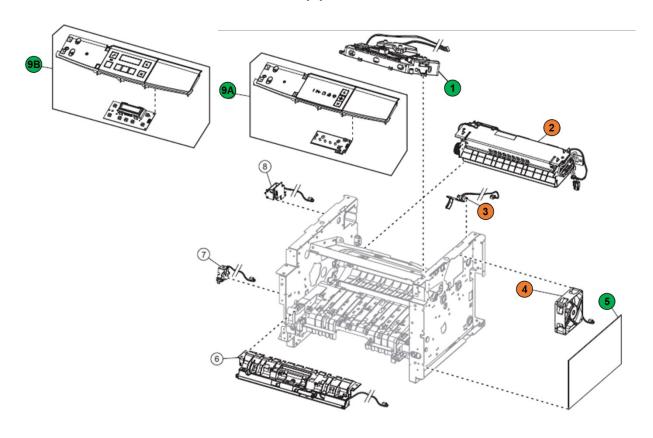


**Imaging Unit** 



## Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

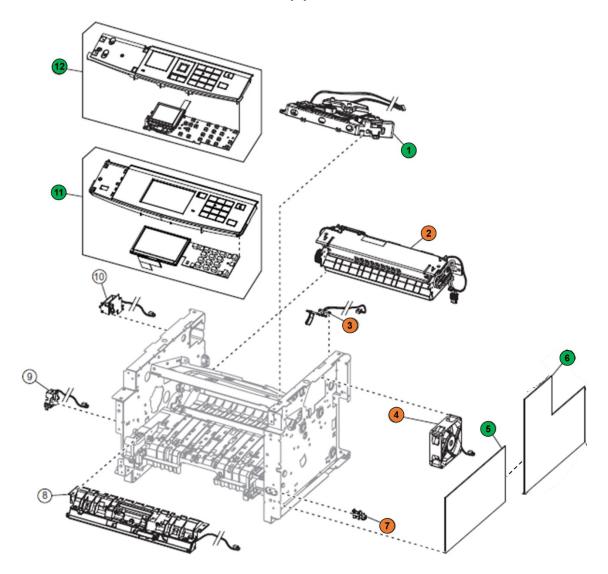
#### MS31x and MS410 Op panel and Electronics 1



| Index | Description                                       |
|-------|---|
| 1     | Laser scanning unit card within the assembly      |
| 2     | Brominated fuser parts (See Fuser)                |
| 3     | Narrow media/bin full sensor                      |
| 4     | Cooling fan                                       |
| 5     | Controller board                                  |
| 9A    | Control panel board within the assembly for MS31x |
| 9B    | Control panel board within the assembly for MS410 |

# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

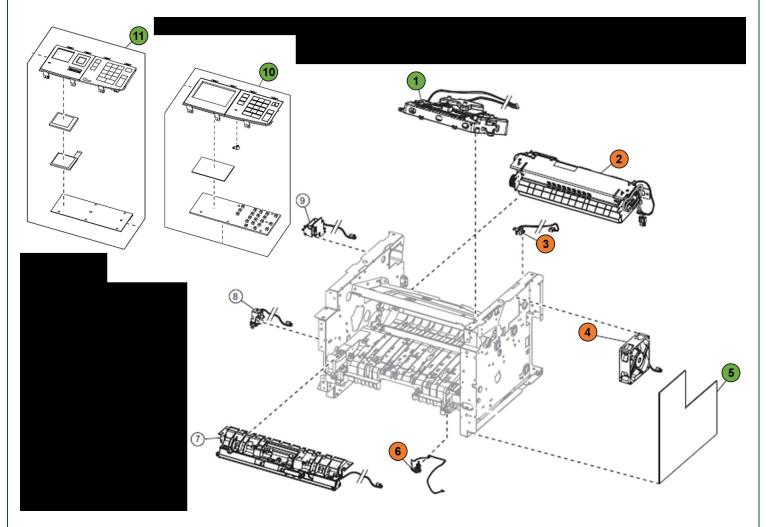
#### MS510 and MS61x Op panel and Electronics 1



| Index | Description                                       |
|-------|---|
| 1     | Laser scanning unit card within the assembly      |
| 2     | Brominated fuser parts (See Fuser)                |
| 3     | Narrow media/bin full sensor                      |
| 4     | Cooling fan                                       |
| 5     | Controller board for MS510, MS610dn               |
| 6     | Controller board for MS610de                      |
| 7     | Tray present sensor                               |
| 11    | Control panel board within the assembly for MS310 |
| 12    | Control panel board within the assembly for MS410 |

## Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

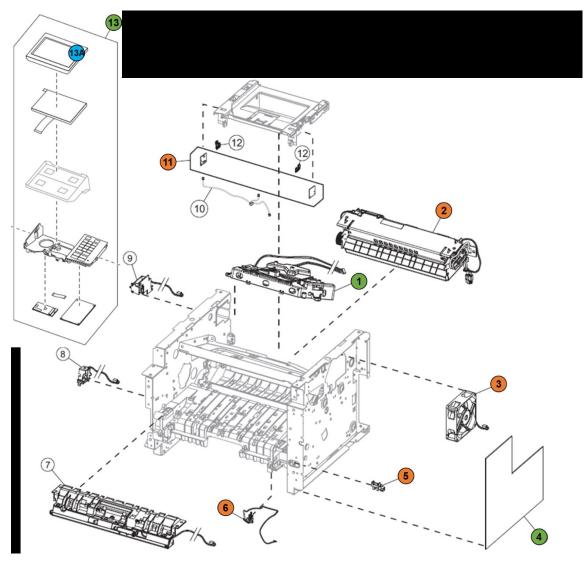
## MX31x, MX410, MX51x Series Control panel and Electronics 1



| Index | Description  |
|-------|--|
| 1     | Laser scanning unit card within the assembly             |
| 2     | Brominated fuser parts (See Fuser)                       |
| 3     | Bin full sensor  |
| 4     | Cooling fan  |
| 5     | Controller board   |
| 6     | Narrow media sensor                                      |
| 10    | Control panel board within the assembly for MX410, MX51x |
| 11    | Control panel board within the assembly for MX31x        |

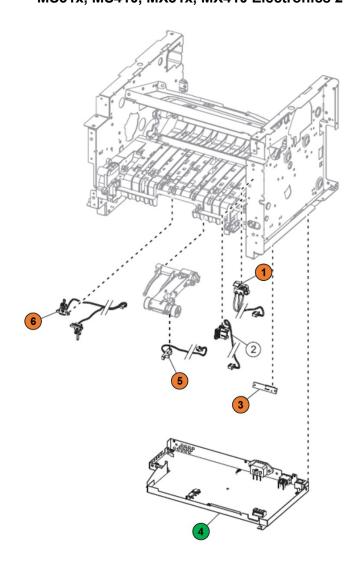
## Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

## MX61x Series Control panel and Electronics 1



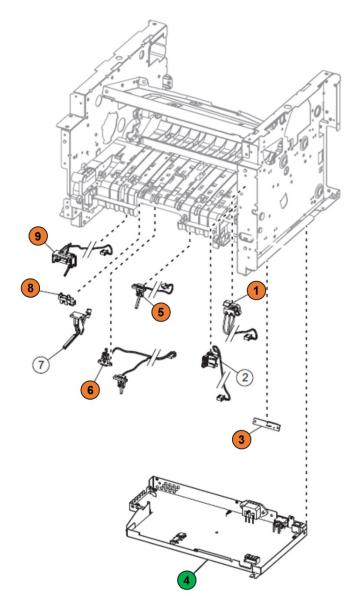
| Index | Description                                       |
|-------|---|
| 1     | Laser scanning unit card within the assembly      |
| 2     | Brominated fuser parts (See Fuser)                |
| 3     | Bin full sensor Cooling fan                       |
| 4     | Controller board                                  |
| 5     | Tray present sensor                               |
| 6     | Narrow media sensor                               |
| 11    | Bin full sensor                                   |
| 13    | Control panel board within the assembly for MX61x |
| 13A   | e-Task 7-inch Touchscreen Op panel                |

# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components MS31x, MS410, MX31x, MX410 Electronics 2



| Index | Description                    |
|-------|--------------------------------|
| 1     | Front door sensor              |
| 3     | Toner density sensor           |
| 4     | Power supply                   |
| 5     | Trailing edge sensor           |
| 6     | Duplex sensor and input sensor |

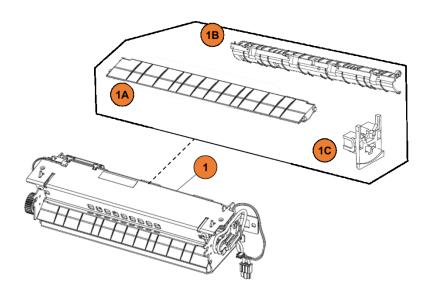
# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components MS51x, MS61x, MX51x, MX61x Electronics 2



| Index | Description                    |
|-------|--------------------------------|
| 1     | Front door sensor              |
| 3     | Toner density sensor           |
| 4     | Power supply                   |
| 5     | Trailing edge sensor           |
| 6     | Duplex sensor and input sensor |
| 8     | Media present sensor           |
| 9     | Trailing edge sensor           |

# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

#### Fuser

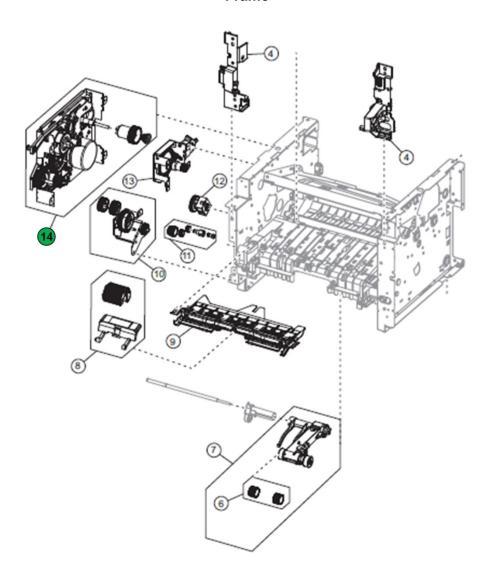


| Index | Description                            |
|-------|--|
| 1A    | GUIDE (MECHANICAL) – GUIDE-LOWER INPUT |
| 1B    | GUIDE (MECHANICAL) – FUSER LOWR EXIT   |
| 1C    | ALIGNER – FUSR HEATER ASM              |

Doc No.: Rev. 02 Page 11 of 29

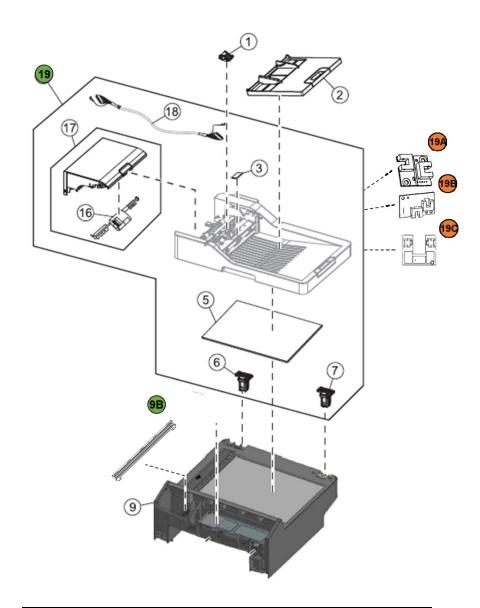
# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

#### Frame



| Index | Description  |
|-------|--|
| 14    | Main drive gearbox motor board within the assembly |

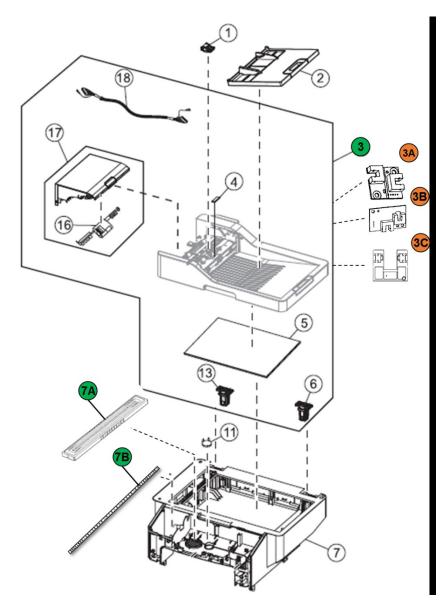
# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components MX31x, MX410, MX51x ADF and Flatbed scanner



| Index | Description                       |
|-------|-----------------------------------|
| 9B    | Scanner – Image sensor assembly   |
| 19    | ADF card within the assembly      |
| 19A   | ADF - PCBA_sensor_doc&stage_assy/ |
|       | ADF - PCBA_sensor_stage_skew      |
| 19B   | ADF - FEED SENSOR PCBA DIP        |
| 19C   | ADF cover sensor                  |

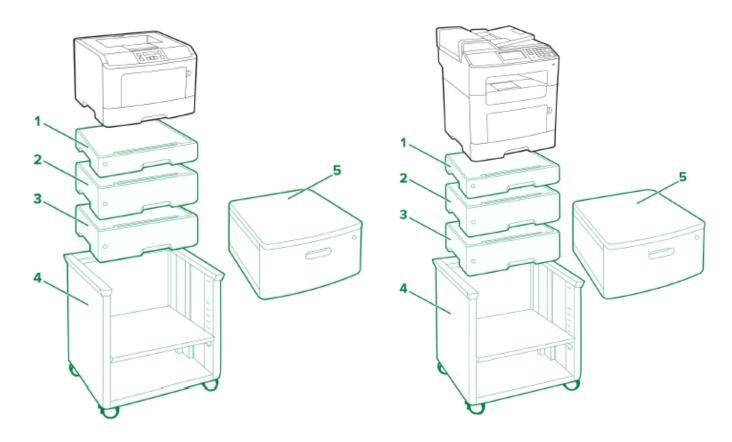
# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

#### MX61x ADF and Flatbed scanner



| Index | Description                       |
|-------|-----------------------------------|
| 3     | ADF card within the assembly      |
| 3A    | ADF - PCBA_sensor_doc&stage_assy/ |
|       | ADF - PCBA_sensor_stage_skew      |
| 3B    | ADF - FEED SENSOR PCBA DIP        |
| 3C    | ADF cover sensor                  |
| 7A    | Flatbed CCD card                  |
| 7B    | Flatbed 42LED bard card           |

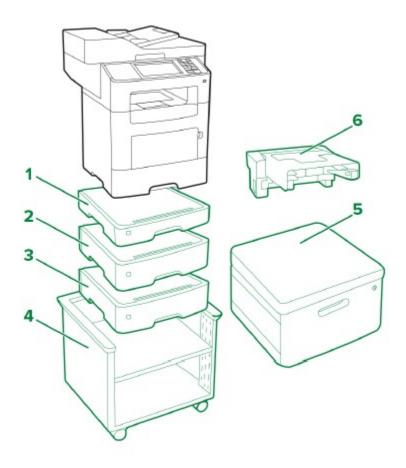
## MS and MX Series Paper handing devices



| Index | Description               |
|-------|---------------------------|
| 1     | 250-sheet tray            |
| 2     | 550-sheet lockable tray   |
| 3     | 550-sheet tray            |
| 4     | Adjustable printer stand* |
| 5     | Swivel cabinet*           |

Options marked with (\*) are non-Electrical and electronic units

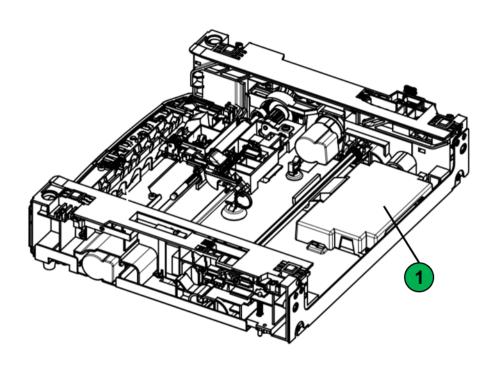
## MX61x Series Paper handing devices



| Index | Description                      |  |  |  |  |  |
|-------|----------------------------------|--|--|--|--|--|
| 1     | 250-sheet tray                   |  |  |  |  |  |
| 2     | 550-sheet lockable tray          |  |  |  |  |  |
| 3     | 550-sheet tray                   |  |  |  |  |  |
| 4     | Adjustable printer stand*        |  |  |  |  |  |
| 5     | Swivel cabinet*                  |  |  |  |  |  |
| 6     | Inline stapler / Staple finisher |  |  |  |  |  |

Options marked with (\*) are non-Electrical and electronic units

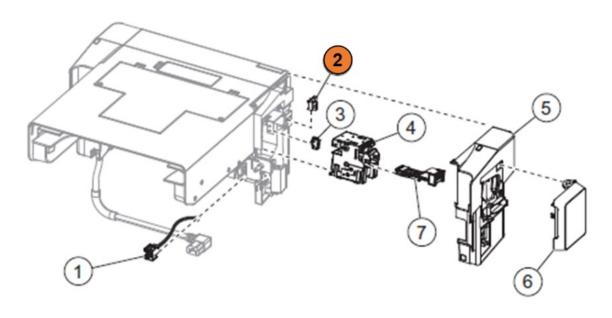
# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components 250 / 550 Sheet Tray



| Index | Description                               |
|-------|---|
| 1     | Tray controller board within the assembly |

# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

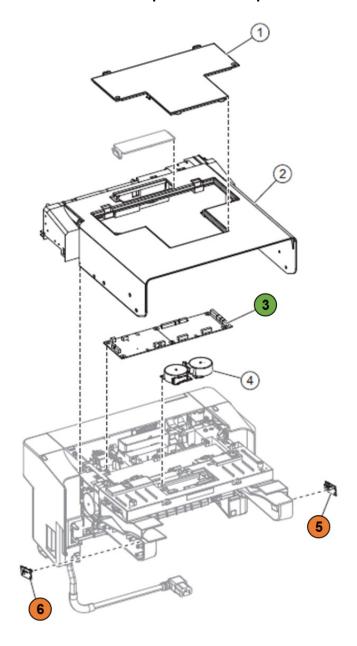
## MX61x Staple Finisher Right



| Index | Description                  |
|-------|------------------------------|
| 2     | Sensor (stapler access door) |

# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

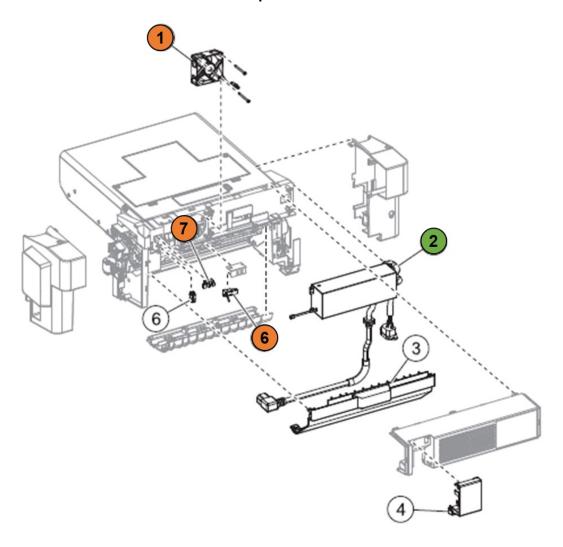
## MX61x Staple Finisher Top



| Index | Description                       |  |  |  |  |  |
|-------|-----------------------------------|--|--|--|--|--|
| 2     | Stapler controller card           |  |  |  |  |  |
| 5     | Sensor (stapler bin full send)    |  |  |  |  |  |
| 6     | Sensor (stapler bin full receive) |  |  |  |  |  |

# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

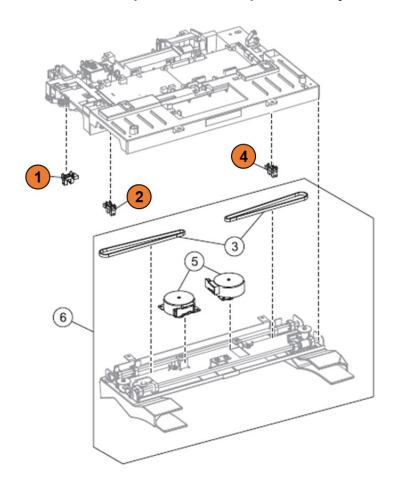
## MX61x Staple Finisher Rear



| Index | Description                   |  |  |  |  |  |
|-------|-------------------------------|--|--|--|--|--|
| 1     | Stapler cooler fan            |  |  |  |  |  |
| 2     | Stapler power supply unit     |  |  |  |  |  |
| 5     | Sensor (stapler pass through) |  |  |  |  |  |
| 6     | Sensor (stapler rear door)    |  |  |  |  |  |

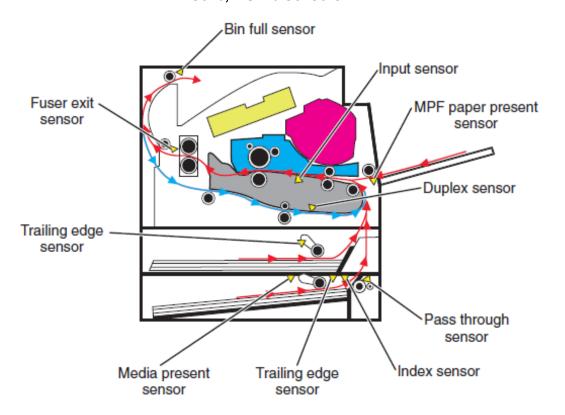
# Printed Circuit Boards >10cm<sup>2</sup> and Brominated Plastic Components

#### **MX61x Staple Finisher Tamper Assembly**

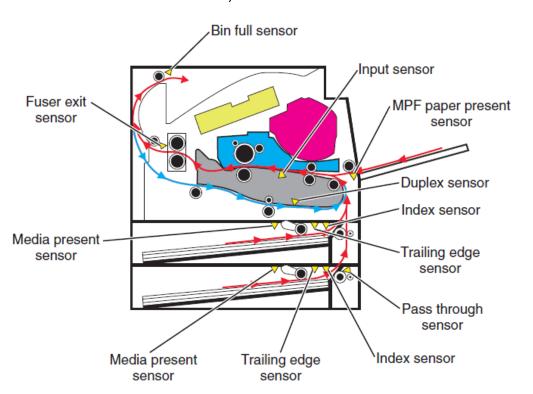


| Index | Description                      |
|-------|----------------------------------|
| 1     | Sensor (stapler paddle HP)       |
| 2     | Sensor (stapler left tamper HP)  |
| 4     | Sensor (stapler right tamper HP) |

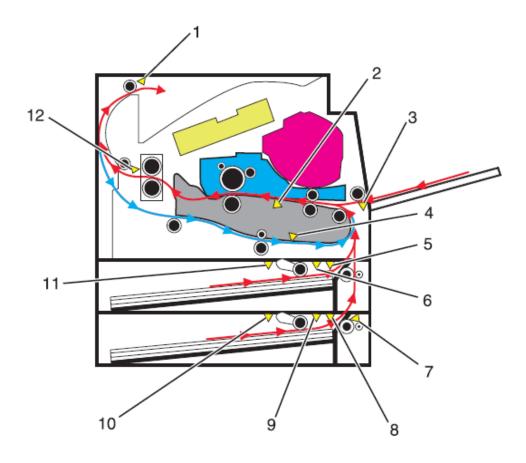
#### MS310, MS410 Sensors



#### MS510, MS610 Sensors

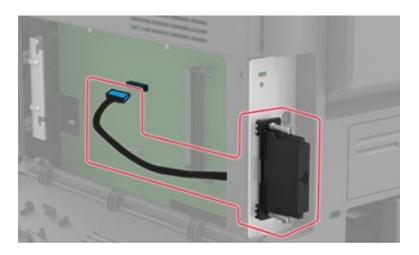


## MX31x, MX410, MX51x, MX61x Sensors



| Index | Description              |
|-------|--------------------------|
| 1     | Bin full sensor          |
| 2     | Input sensor             |
| 3     | MPF paper present sensor |
| 4     | Duplex sensor            |
| 5     | Index sensor             |
| 6     | Trailing edge sensor     |
| 7     | Pass through sensor      |
| 8     | Index sensor             |
| 9     | Trailing edge sensor     |
| 10    | Media present sensor     |
| 11    | Media present sensor     |
| 12    | Fuser exit sensor        |

#### **External Options**



External Print Servers<sup>1</sup>

**Note 1**: Illustration shows actual options and their typical locations and mounting at the <u>rear side</u> of the printer. However, this does not show the actual printer model.

## Annex A – Printer components with Brominated Flame Retardants

| Index | Description                             | Parts Marking           | MS31x<br>MS410<br>Qty | MS51x<br>MS61x<br>Qty | MX<br>Series<br>Qty | Location       |
|-------|---|-------------------------|-----------------------|-----------------------|---------------------|----------------|
| 1     | GUIDE (MECHANICAL)  – GUIDE-LOWER INPUT | PET-(GF+MD)40<br>FR(17) | 1                     | 1                     | 1                   |                |
| 2     | GUIDE (MECHANICAL)  – FUSER LOWR EXIT   | PET-(GF+MD)40<br>FR(17) | 1                     | 1                     | 1                   | <u>Fuser</u>   |
| 3     | ALIGNER – FUSR<br>HEATER ASM            | PET-(GF+MD)40<br>FR(17) | 1                     | 1                     | 1                   |                |
| 4     | Narrow media/bin full sensor            | N/A                     | 1                     | 1                     | 1                   |                |
| 5     | Cooling fan                             | N/A                     | 1                     | 1                     | 1                   | Electronics 1  |
| 6     | Tray present sensor                     | N/A                     |                       | 1                     | 1                   |                |
| 7     | Front door sensor                       | N/A                     | 1                     | 1                     | 1                   |                |
| 8     | Toner density sensor                    | N/A                     | 1                     | 1                     | 1                   |                |
| 9     | Duplex sensor and input sensor          | N/A                     | 2                     | 2                     | 2                   | Electronics 2  |
| 10    | Media present sensor                    | N/A                     | 1                     | 2                     | 2                   | <u> </u>       |
| 11    | Trailing edge sensor                    | N/A                     | 1                     | 2                     | 2                   |                |
| 12    | Index sensor                            | N/A                     | 1                     | 2                     | 2                   |                |
| 13    | Pass through sensor                     | N/A                     | 1                     | 1                     | 1                   | <u>Sensors</u> |
| 14    | Fuser exit sensor                       | N/A                     | 1                     | 1                     | 1                   |                |

## Annex B – ADF, Flatbed Scanner and Stapler Finisher components with Brominated Flame Retardants

| Index | Description                       | Parts Marking               | MS31x<br>MS410<br>Qty | MS51x<br>MS61x<br>Qty | MX<br>Series<br>Qty | Location                         |
|-------|-----------------------------------|-----------------------------|-----------------------|-----------------------|---------------------|----------------------------------|
| 1     | Sensor (stapler access door)      | PET-<br>(GF+MD)40<br>FR(17) |                       |                       | 1                   | MX61x Staple<br>Finisher Right   |
| 2     | Sensor (stapler bin full send)    | PET-<br>(GF+MD)40<br>FR(17) |                       |                       | 1                   | MX61x Staple                     |
| 3     | Sensor (stapler bin full receive) | PET-<br>(GF+MD)40<br>FR(17) |                       |                       | 1                   | Finisher Top                     |
| 4     | Stapler cooler fan                | N/A                         |                       |                       | 1                   |                                  |
| 5     | Stapler power supply unit         | N/A                         |                       |                       | 1                   | MX61x Staple                     |
| 6     | Sensor (stapler pass through)     | N/A                         |                       |                       | 1                   | <u>Finisher Rear</u>             |
| 7     | Sensor (stapler rear door)        | N/A                         |                       |                       | 1                   |                                  |
| 8     | Sensor (stapler paddle HP)        | N/A                         |                       |                       | 1                   | MX61x Staple                     |
| 9     | Sensor (stapler left tamper HP)   | N/A                         |                       |                       | 1                   | <u>Finisher</u><br><u>Tamper</u> |
| 10    | Sensor (stapler right tamper HP)  | N/A                         |                       |                       | 1                   | <u>Assembly</u>                  |
| 11    | ADF - PCBA_sensor_doc&stage_assy/ | N/A                         |                       |                       | 1                   | MX31x,<br>MX410, MX51x           |
| 12    | ADF - PCBA_sensor_stage_skew      | N/A                         |                       |                       | 1                   | <u>MX61x</u>                     |
| 13    | ADF - FEED SENSOR PCBA<br>DIP     | N/A                         |                       |                       | 1                   | ADF and<br>Flatbed               |
| 14    | ADF cover sensor                  | N/A                         |                       |                       | 1                   | scanner                          |

# Annex C – Printed Circuit Boards >10cm<sup>2</sup>

| Index | Description                                       | Qty | Location                           | MS31x<br>MS410 | MS51x<br>MS61x | MX31x<br>MX410<br>MX51x | MX61x |
|-------|---|-----|------------------------------------|----------------|----------------|-------------------------|-------|
| 1     | Laser scanning unit card                          | 1   | Within LSU assembly                | Х              | X              | Х                       | Х     |
| 2     | Controller board                                  | 1   | MS Series, MX Series Electronics 1 | X              | X              | X                       | Х     |
| 3     | Control panel board for MS310 and 410             | 1   | Op panel                           | Х              |                |                         |       |
|       | Control panel board for MS510 and 610             | 1   | Op panel                           |                | X              |                         |       |
|       | Control panel board<br>for MX31x, MX41x,<br>MX51x | 1   | Control panel                      |                |                | Х                       | Х     |
|       | Control panel board for MX61x                     | 1   | Control panel                      |                |                |                         | X     |
| 4     | Power supply                                      | 1   | MS Series, MX Series Electronics 2 | Χ              | X              | X                       | Х     |
| 5     | Main drive gearbox<br>motor board                 | 1   | <u>Frames</u>                      | Х              | X              | Х                       | Х     |
| 6     | Scanner – Image sensor assembly                   | 1   | MX Series ADF and                  |                |                | X                       |       |
| 6     | MX Series ADF Card                                | 1   | <u>Flatbed Scanner</u>             |                |                | X                       |       |
|       | MX61x ADF Card                                    | 1   |                                    |                |                |                         | X     |
| 7     | Flatbed CCD card                                  | 1   | MX61x ADF and Flatbed Scanner      |                |                |                         | X     |
| 8     | Flatbed 42LED bard card                           | 1   |                                    |                |                |                         | Х     |
| 9     | 250 Sheet Tray<br>Option                          | 1   | 250 / 550 Sheet Tray               | Χ              | X              | X                       | X     |
| 10    | 550 Sheet Tray<br>Option                          | 1   | 200 / 300 Officer fray             | Χ              | X              | X                       | Х     |
| 11    | Staple controller card                            | 1   | Staple Finisher Top                |                |                |                         | X     |
| 12    | Staple power supply unit                          | 1   | Staple Finisher Rear               |                |                |                         | Х     |
| 13    | Hard disk drive (HDD) for MX511 and MX61x         | 1   | Attached to Controller card        |                |                | X                       | X     |

## Annex D – Electrical and Electronic (EE) Customer Replaceable Devices

| Index | Part<br>Number | Description                | Location                            | MS31x<br>MS410 | MS51x<br>MS61x | MX31x<br>MX410<br>MX51x | MX61x |
|-------|----------------|----------------------------|-------------------------------------|----------------|----------------|-------------------------|-------|
| 1     | 35S0267        | 250-Sheet Tray             | MS and MX                           | Χ              | X              | Х                       | X     |
| 2     | 35\$0567       | 550-Sheet Tray             | Series Paper<br>handling<br>devices | Х              | X              | Х                       | X     |
| 3     | 35S0367        | 550-Sheet<br>Lockable Tray |                                     | Х              | Х              | X                       | X     |
| 4     | 35\$8000       | MX61x Staple<br>Finisher   | MX61x Series Paper handling devices |                |                |                         | Х     |

## Annex E – Electrical and Electronic (EE) Customer Replaceable Internal/External Card options

| Index | Part Number  | Description               | Location                          | MS31x<br>MS410        | MS51x<br>MS61x | MX31x<br>MX410<br>MX51x | MX61x |
|-------|--|---------------------------|-----------------------------------|-----------------------|----------------|-------------------------|-------|
| 1     | 27X0210  | HDD                       |                                   |                       | Х              | Х                       | Х     |
| 2     | 57X9014  |                           |                                   |                       | Х              | Х                       |       |
|       | 57X9011  | -                         |                                   |                       | Х              |                         |       |
|       | 57X9016  | Memory options            |                                   |                       | X              | X                       | Х     |
|       | 57X9012  | -                         |                                   |                       | X              | X                       | Х     |
|       | 57X9101  | -                         |                                   | X                     | X              | X                       | Х     |
| 3     | 35S2992<br>35S2993<br>35S2994<br>34S4500<br>34S4501<br>34S4502 | Firmware Cards<br>(DLEs)  | Attached to  MS Controller  card, |                       | X              |                         |       |
|       | 35S5888<br>35S6850<br>35S5889<br>35S6851<br>35S5890<br>35S6852 |                           | (DLES)                            | MX Controller<br>card |                |                         | X     |
| 4     | 57X9110<br>57X9112<br>57X9114<br>57X9115                       | DBCS Font<br>Cards        |                                   | Х                     | ×              | ×                       | х     |
| 5     | 27X0128  | Wireless Print<br>Server  |                                   |                       | All dn         | models                  |       |
| 6     | 27X0129<br>27X0903   | Internal Print<br>Servers |                                   |                       |                | Х                       | Х     |
| 7     | 27X0900<br>27X0901   | Local Interface<br>Cards  |                                   |                       | Х              |                         |       |
| 8     | 14T0230<br>14T0240<br>14T0220                                  | External Print<br>Servers | External card options             | Х                     | Х              | Х                       | Х     |