

# **Mono Laser Printers**

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## **User's Guide**

**January 2021**

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Machine type(s):

4601

Models:

230, 280, 4a0, 480, and their equivalent models

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# Safety information

## Conventions

**Note:** A *note* identifies information that could help you.

**Warning:** A *warning* identifies something that could damage the product hardware or software.

**CAUTION:** A *caution* indicates a potentially hazardous situation that could injure you.

Different types of caution statements include:



**CAUTION—POTENTIAL INJURY:** Indicates a risk of injury.



**CAUTION—SHOCK HAZARD:** Indicates a risk of electrical shock.



**CAUTION—HOT SURFACE:** Indicates a risk of burn if touched.



**CAUTION—TIPPING HAZARD:** Indicates a crush hazard.



**CAUTION—PINCH HAZARD:** Indicates a risk of being caught between moving parts.

## Product statements



**CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.



**CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.



**CAUTION—POTENTIAL INJURY:** Do not use this product with extension cords, multioutlet power strips, multioutlet extenders, or UPS devices. The power capacity of these types of accessories can be easily overloaded by a laser printer and may result in a risk of fire, property damage, or poor printer performance.



**CAUTION—POTENTIAL INJURY—USE OF SURGE PROTECTORS:** Surge protectors that have been tested for use with this printer are available from your service representative. The use of surge protectors whose specifications are not compatible with the specifications and requirements of this printer may result in a risk of fire, property damage, injury, or poor printer performance.












**CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, do not place or use this product near water or wet locations.





**CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, do not set up this product or make any electrical or cabling connections, such as the power cord, fax feature, or telephone, during a lightning storm.



**CAUTION—POTENTIAL INJURY:** Do not cut, twist, bind, crush, or place heavy objects on the power cord. Do not subject the power cord to abrasion or stress. Do not pinch the power cord between objects such as furniture and walls. If any of these things happen, a risk of fire or electrical shock results. Inspect the power cord regularly for signs of such problems. Remove the power cord from the electrical outlet before inspecting it.

-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, make sure that all external connections (such as Ethernet and telephone system connections) are properly installed in their marked plug-in ports.
-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.
-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.
-  **CAUTION—POTENTIAL INJURY:** If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.
-  **CAUTION—POTENTIAL INJURY:** When moving the printer, follow these guidelines to avoid personal injury or printer damage:
- Make sure that all doors and trays are closed.
  - Turn off the printer, and then unplug the power cord from the electrical outlet.
  - Disconnect all cords and cables from the printer.
  - If the printer has separate floor-standing optional trays or output options attached to it, then disconnect them before moving the printer.
  - If the printer has a caster base, then carefully roll it to the new location. Use caution when passing over thresholds and breaks in flooring.
  - If the printer does not have a caster base but is configured with optional trays or output options, then remove the output options and lift the printer off the trays. Do not try to lift the printer and any options at the same time.
  - Always use the handholds on the printer to lift it.
  - Any cart used to move the printer must have a surface able to support the full footprint of the printer.
  - Any cart used to move the hardware options must have a surface able to support the dimensions of the options.
  - Keep the printer in an upright position.
  - Avoid severe jarring movements.
  - Make sure that your fingers are not under the printer when you set it down.
  - Make sure that there is adequate clearance around the printer.
-  **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.
-  **CAUTION—TIPPING HAZARD:** To reduce the risk of equipment instability, load each tray separately. Keep all other trays closed until needed.
-  **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.
-  **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

 **CAUTION—POTENTIAL INJURY:** This product uses a laser. Use of controls or adjustments or performance of procedures other than those specified in the *User's Guide* may result in hazardous radiation exposure.

 **CAUTION—POTENTIAL INJURY:** The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

This product is designed, tested, and approved to meet strict global safety standards with the use of specific manufacturer's components. The safety features of some parts may not always be obvious. The manufacturer is not responsible for the use of other replacement parts.

Refer service or repairs, other than those described in the user documentation, to a service representative.

This product uses a printing process that heats the print media, and the heat may cause the media to release emissions. You must understand the section in your operating instructions that discusses the guidelines for selecting print media to avoid the possibility of harmful emissions.

This product may produce small amounts of ozone during normal operation, and may be equipped with a filter designed to limit ozone concentrations to levels well below the recommended exposure limits. To avoid high ozone concentration levels during extensive usage, install this product in a well-ventilated area and replace the ozone and exhaust filters if instructed to do so in the product maintenance instructions. If there are no references to filters in the product maintenance instructions, then there are no filters requiring replacement for this product.

**SAVE THESE INSTRUCTIONS.**

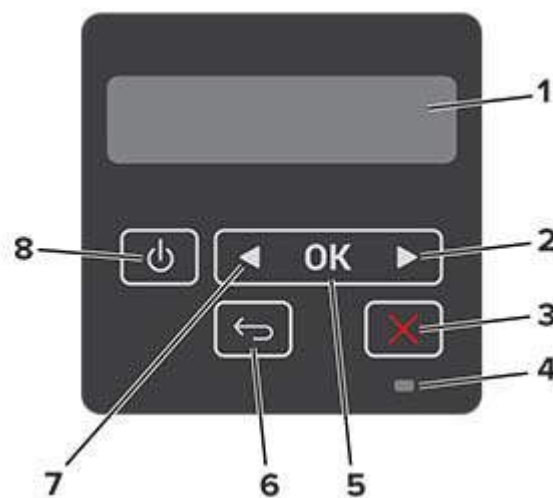
# Learn about the printer

## Printer configuration



|   |                         |
|---|-------------------------|
| 1 | Control panel           |
| 2 | Multipurpose feeder     |
| 3 | Standard 250-sheet tray |
| 4 | Optional 550-sheet tray |
| 5 | Standard bin            |

## Using the control panel



|   | Control panel part | Function  |
|---|--------------------|---|
| 1 | Display            | <ul style="list-style-type: none"> <li>View printer messages and supply status.</li> <li>Set up and operate the printer.</li> </ul> |

|   | Control panel part    | Function   |
|---|-----------------------|--|
| 2 | Right arrow button    | <ul style="list-style-type: none"> <li>• Scroll through menus or move between screens and menu options.</li> <li>• Increase the numeric value of a setting.</li> </ul> |
| 3 | Stop or Cancel button | Stop the current job.  |
| 4 | Indicator light       | Check the status of the printer.   |
| 5 | Select button         | <ul style="list-style-type: none"> <li>• Select a menu option.</li> <li>• Save the changes in a setting.</li> </ul>  |
| 6 | Back button           | Return to the previous screen.   |
| 7 | Left arrow button     | <ul style="list-style-type: none"> <li>• Scroll through menus or move between screens and menu options.</li> <li>• Decrease the numeric value of a setting.</li> </ul> |
| 8 | Power button          | Turn on or turn off the printer.<br><b>Note:</b> To turn off the printer, press and hold the power button for five seconds.  |

## Understanding the status of the indicator light

| Indicator light | Printer status                           |
|-----------------|--|
| Off             | The printer is off or in Hibernate mode. |
| Blue            | The printer is ready or processing data. |
| Blinking red    | The printer requires user intervention.  |
| Solid amber     | The printer is in Sleep mode.            |

## Selecting paper

### Paper guidelines

Use the appropriate paper to prevent jams and help ensure trouble-free printing.

- Always use new, undamaged paper.
- Before loading paper, know the recommended printable side of the paper. This information is usually indicated on the paper package.
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, types, or weights in the same tray; mixing results in jams.
- Do not use coated papers unless they are specifically designed for electrophotographic printing.

### Paper characteristics

The following paper characteristics affect print quality and reliability. Consider these factors before printing on them.



## Weight

The standard tray can feed paper weights from 60 to 120 g/m<sup>2</sup> (16 to 32 lb) grain long paper. Paper lighter than 60 g/m<sup>2</sup> (16 lb) may not be stiff enough to feed properly, and may cause jams.

## Curl

Curl is the tendency for paper to curl at its edges. Excessive curl can cause paper feeding problems. Curl can occur after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in hot, humid, cold, or dry conditions can contribute to paper curling before printing and can cause feeding problems.

## Smoothness

Paper smoothness directly affects print quality. If paper is too rough, toner cannot fuse to it properly. If paper is too smooth, it can cause paper feeding or print quality issues. We recommend the use of paper with 50 Sheffield points.

## Moisture content

The amount of moisture in paper affects both print quality and the printer ability to feed the paper correctly. Leave paper in its original wrapper until you use it. Exposure of paper to moisture changes can degrade its performance.

Store paper in its original wrapper in the same environment as the printer for 24 to 48 hours before printing. Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.

## Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long*, running the length of the paper, or *grain short*, running the width of the paper.

For 60–120 g/m<sup>2</sup> (16–32-lb) paper, grain long paper is recommended.

## Fiber content

Most high-quality xerographic paper is made from 100 percent chemically treated pulped wood. This content provides the paper with a high degree of stability, resulting in fewer paper feeding problems and better print quality. Paper containing fibers such as cotton can negatively affect paper handling.

## Unacceptable paper

The following paper types are not recommended for use with the printer:

- Chemically treated papers used to make copies without carbon paper, also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper
- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers that can be affected by the temperature in the printer fuser
- Preprinted papers that require a registration (the precise print location on the page) greater than ±2.3 mm (±0.9 in.), such as optical character recognition (OCR) forms

In some cases, registration can be adjusted with a software application to successfully print on these forms.

- Coated papers (erasable bond), synthetic papers, thermal papers

- Rough-edged, rough or heavily textured surface papers, or curled papers
- Recycled papers that fail EN12281:2002 (European)
- Paper weighing less than 60 g/m<sup>2</sup> (16 lb)
- Multiple-part forms or documents

## Selecting preprinted forms and letterhead

- Use grain long paper.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid paper with rough or heavily textured surfaces.
- Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based generally meet these requirements; latex inks might not.
- Print samples on preprinted forms and letterheads considered for use before buying large quantities. This action determines whether the ink in the preprinted form or letterhead affects print quality.
- When in doubt, contact your paper supplier.
- When printing on letterhead, load the paper in the proper orientation for your printer.

## Storing paper

Use these paper storage guidelines to help avoid jams and uneven print quality:

- Store paper in its original wrapper in the same environment as the printer for 24 to 48 hours before printing.
- Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.
- For best results, store paper where the temperature is 21°C (70°F) and the relative humidity is 40 percent.
- Most label manufacturers recommend printing in a temperature range of 18–24°C (65–75°F) with relative humidity between 40 and 60 percent.
- Store paper in cartons, on a pallet or shelf, rather than on the floor.
- Store individual packages on a flat surface.
- Do not store anything on top of individual paper packages.
- Take paper out of the carton or wrapper only when you are ready to load it in the printer. The carton and wrapper help keep the paper clean, dry, and flat.

## Supported paper sizes

| Paper size   | Standard 250-sheet tray | Optional 550-sheet tray | Multipurpose feeder | Two-sided printing |
|--|-------------------------|-------------------------|---------------------|--------------------|
| <b>A4</b><br>210 x 297 mm<br>(8.27 x 11.7 in.)                             | ✓                       | ✓                       | ✓                   | ✓                  |
| <b>A5 Portrait (SEF)</b><br>148 x 210 mm<br>(5.83 x 8.27 in.)              | ✓                       | ✓                       | ✓                   | X                  |
| <b>A5 Landscape (LEF)<sup>1</sup></b><br>210 x 148 mm<br>(8.27 x 5.83 in.) | ✓                       | ✓                       | ✓                   | X                  |
| <b>A6</b><br>105 x 148 mm<br>(4.13 x 5.83 in.)                             | ✓                       | ✓                       | ✓                   | X                  |
| <b>JIS B5</b><br>182 x 257 mm<br>(7.17 x 10.1 in.)                         | ✓                       | ✓                       | ✓                   | X                  |
| <b>Oficio (Mexico)</b><br>215.9 x 340.4 mm<br>(8.5 x 13.4 in.)             | ✓                       | ✓                       | ✓                   | ✓                  |
| <b>Hagaki</b><br>100 x 148 mm<br>(3.94 x 5.83 in.)                         | ✓                       | X                       | ✓                   | X                  |
| <b>Statement</b><br>139.7 x 215.9 mm<br>(5.5 x 8.5 in.)                    | ✓                       | ✓                       | ✓                   | X                  |
| <b>Executive</b><br>184.2 x 266.7 mm<br>(7.25 x 10.5 in.)                  | ✓                       | ✓                       | ✓                   | X                  |
| <b>Letter</b><br>215.9 x 279.4 mm<br>(8.5 x 11 in.)                        | ✓                       | ✓                       | ✓                   | ✓                  |

<sup>1</sup> The default support is long-edge feed.

<sup>2</sup> Paper must at least be 210 mm (8.27in.) wide and 279.4 mm (11 in.) long for two-sided printing.

<sup>3</sup> When Universal is selected, the page is formatted for 215.90 x 355.60 mm (8.5 x 14 in.) unless specified by the application.

| Paper size   | Standard 250-sheet tray | Optional 550-sheet tray | Multipurpose feeder | Two-sided printing |
|--|-------------------------|-------------------------|---------------------|--------------------|
| <b>Legal</b><br>215.9 x 355.6 mm<br>(8.5 x 14 in.)   | ✓                       | ✓                       | ✓                   | ✓                  |
| <b>Folio</b><br>215.9 x 330.2 mm<br>(8.5 x 13 in.)   | ✓                       | ✓                       | ✓                   | ✓                  |
| <b>Universal<sup>3</sup></b><br>99 x 148 mm to<br>215.9 x 359.92 mm<br>(3.9 x 5.83 in. to 8.5 x 14.17 in.) | ✓                       | ✓                       | ✓                   | ✓ <sup>2</sup>     |
| <b>7 3/4 Envelope</b><br>98.4 x 190.5 mm<br>(3.875 x 7.5 in.)  | X                       | X                       | ✓                   | X                  |
| <b>9 Envelope</b><br>98.4 x 225.4 mm<br>(3.875 x 8.9 in.)  | X                       | X                       | ✓                   | X                  |
| <b>10 Envelope</b><br>104.8 x 241.3 mm<br>(4.12 x 9.5 in.)   | X                       | X                       | ✓                   | X                  |
| <b>DL Envelope</b><br>110 x 220 mm<br>(4.33 x 8.66 in.)  | X                       | X                       | ✓                   | X                  |
| <b>C5 Envelope</b><br>162 x 229 mm<br>(6.38 x 9.01 in.)  | X                       | X                       | ✓                   | X                  |
| <b>B5 Envelope</b><br>176 x 250 mm<br>(6.93 x 9.84 in.)  | X                       | X                       | ✓                   | X                  |
| <b>Other Envelope</b><br>98.4 x 162 mm to<br>176 x 250 mm<br>(3.87 x 6.38 in. to<br>6.93 x 9.84 in.)       | X                       | X                       | ✓                   | X                  |

<sup>1</sup> The default support is long-edge feed.

<sup>2</sup> Paper must at least be 210 mm (8.27in.) wide and 279.4 mm (11 in.) long for two-sided printing.

<sup>3</sup> When Universal is selected, the page is formatted for 215.90 x 355.60 mm (8.5 x 14 in.) unless specified by the application.

## Supported paper types

| Paper type     | Standard 250-sheet tray | Optional 550-sheet tray | Multipurpose feeder | Two-sided printing |
|----------------|-------------------------|-------------------------|---------------------|--------------------|
| Plain paper    | ✓                       | ✓                       | ✓                   | ✓                  |
| Card stock     | X                       | X                       | ✓                   | X                  |
| Recycled       | ✓                       | ✓                       | ✓                   | ✓                  |
| Paper labels*  | ✓                       | ✓                       | ✓                   | X                  |
| Bond           | ✓                       | ✓                       | ✓                   | ✓                  |
| Letterhead     | ✓                       | ✓                       | ✓                   | ✓                  |
| Preprinted     | ✓                       | ✓                       | ✓                   | ✓                  |
| Colored Paper  | ✓                       | ✓                       | ✓                   | ✓                  |
| Light Paper    | ✓                       | ✓                       | ✓                   | ✓                  |
| Heavy Paper    | ✓                       | ✓                       | ✓                   | ✓                  |
| Rough/Cotton   | ✓                       | ✓                       | ✓                   | ✓                  |
| Envelope       | X                       | X                       | ✓                   | X                  |
| Rough envelope | X                       | X                       | ✓                   | X                  |

\* One-sided paper labels are supported for occasional use of less than 20 pages per month. Vinyl, pharmacy, or two-sided labels are not supported.

## Supported paper weights

|              | Standard 250-sheet tray               | Optional 550-sheet tray               | Multipurpose feeder                   | Two-sided printing                   |
|--------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|
| Paper weight | 60–120 g/m <sup>2</sup><br>(16–32 lb) | 60–120 g/m <sup>2</sup><br>(16–32 lb) | 60–217 g/m <sup>2</sup><br>(16–58 lb) | 60–90 g/m <sup>2</sup><br>(16–24 lb) |

# Set up, install, and configure

## Selecting a location for the printer

- Leave enough room to open trays, covers, and doors and to install hardware options.
- Set up the printer near an electrical outlet.

**⚠ CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

**⚡ CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, do not place or use this product near water or wet locations.

- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
  - Clean, dry, and free of dust
  - Away from stray staples and paper clips
  - Away from the direct airflow of air conditioners, heaters, or ventilators
  - Free from direct sunlight and humidity extremes
- Observe the recommended temperatures and avoid fluctuations.

|                     |                            |
|---------------------|----------------------------|
| Ambient temperature | 10 to 32.2°C (50 to 90°F)  |
| Storage temperature | -40 to 40°C (-40 to 104°F) |

- Allow the following recommended amount of space around the printer for proper ventilation:



|   |            |                   |
|---|------------|-------------------|
| 1 | Top        | 305 mm (12 in.)   |
| 2 | Rear       | 100 mm (3.94 in.) |
| 3 | Right side | 76.2 mm (3 in.)   |

|          |           |  |
|----------|-----------|--|
| <b>4</b> | Front     | 305 mm (12 in.)<br><b>Note:</b> The minimum space needed in front of the printer is 76 mm (3 in.). |
| <b>5</b> | Left side | 110 mm (4.33 in.)  |

## Attaching cables

- ⚠ CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, do not set up this product or make any electrical or cabling connections, such as the power cord, fax feature, or telephone, during a lightning storm.
  - ⚠ CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.
  - ⚠ CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.
- Warning—Potential Damage:** To avoid loss of data or printer malfunction, do not touch the USB cable, any wireless network adapter, or the printer in the areas shown while actively printing.




|          | Printer port      | Function                                     |
|----------|-------------------|--|
| <b>1</b> | USB printer port  | Connect the printer to a computer.           |
| <b>2</b> | Ethernet port     | Connect the printer to a network.            |
| <b>3</b> | Power cord socket | Connect the printer to an electrical outlet. |

## Installing optional trays


- ⚠ CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.
- 1** Turn off the printer.
  - 2** Unplug the power cord from the electrical outlet, and then from the printer.
  - 3** Unpack the optional tray, and then remove all packing material.

- 4 Align the printer with the optional tray, and then lower the printer into place.

 **CAUTION—POTENTIAL INJURY:** If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.



- 5 Connect the power cord to the printer, and then to the electrical outlet.

 **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

- 6 Turn on the printer.

Add the tray in the print driver to make it available for print jobs. For more information, see [“Adding available options in the print driver” on page 21](#).

## Loading paper and specialty media

### Setting the paper size and type

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Paper** > **OK** > **Tray Configuration** > **OK** > **Paper Size/Type** > **OK** > select a paper source

- 2 Set the paper size and type.

### Configuring Universal paper settings

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Paper** > **OK** > **Media Configuration** > **OK** > **Universal Setup** > **OK**

- 2 Configure the settings.

### Loading trays

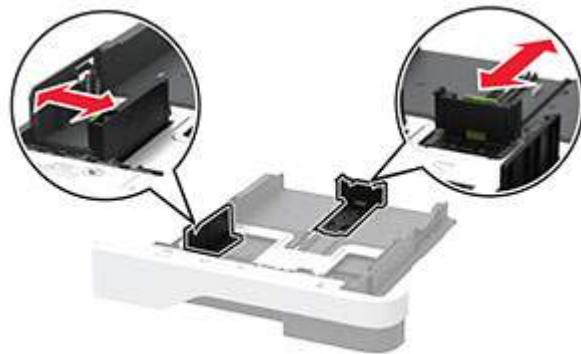
- 1 Remove the tray.

**Note:** To avoid paper jams, do not remove the tray while the printer is busy.

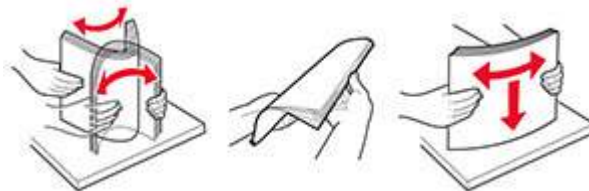




**2** Adjust the guides to match the size of the paper that you are loading.



**3** Flex, fan, and align the paper edges before loading.



**4** Load the paper stack with the printable side facedown, and then make sure that the guides fit snugly against the paper.

**Notes:**

- Load letterhead facedown with the header toward the front of the tray for one-sided printing.
- Load letterhead faceup with the header toward the back of the tray for two-sided printing.
- Do not slide paper into the tray.
- To avoid paper jams, make sure that the stack height is below the maximum paper fill indicator.

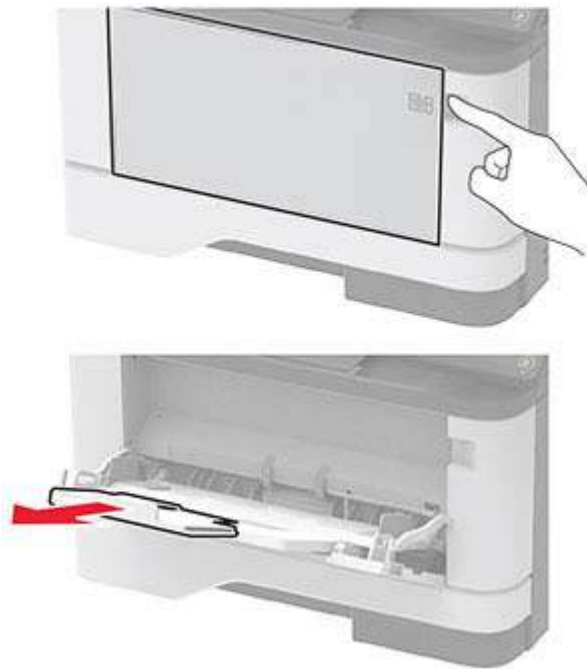


**5** Insert the tray.

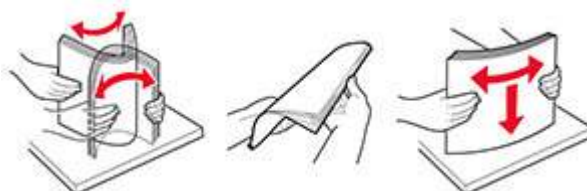
If necessary, set the paper size and paper type from the control panel to match the paper loaded.

## Loading the multipurpose feeder

**1** Open the multipurpose feeder.



**2** Flex, fan, and align the paper edges before loading.



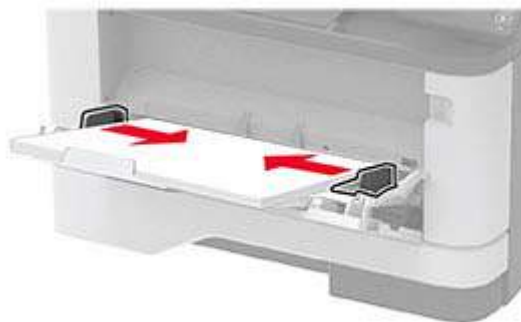
**3** Load paper with the printable side faceup.

**Notes:**

- Load letterhead faceup with the header toward the rear of the printer for one-sided printing.
- Load letterhead facedown with the header toward the front of the printer for two-sided printing.
- Load envelopes with the flap facedown on the left side.

**Warning—Potential Damage:** Do not use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives.

**4** Adjust the guide to match the size of the paper that you are loading.



**5** From the control panel, set the paper size and paper type to match the paper loaded.

## Linking trays

**1** From the control panel, navigate to:

**Settings** > **OK** > **Paper** > **OK** > **Tray Configuration** > **OK** > **Paper Size/Type** > **OK**

**2** Set the same paper size and paper type for the trays that you are linking.

**3** From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Maintenance** > **OK** > **Config Menu** > **OK** > **Tray Configuration** > **OK**

**4** Set Tray Linking to **Automatic**.

To unlink trays, make sure that no trays have the same paper size and paper type settings.

**Warning—Potential Damage:** The temperature of the fuser varies according to the specified paper type. To avoid printing issues, match the paper type setting in the printer with the paper loaded in the tray.

# Installing and updating software, drivers, and firmware

## Installing the printer software

### Notes:

- The print driver is included in the software installer package.
- For Macintosh computers with macOS version 10.7 or later, you do not need to install the driver to print on an AirPrint-certified printer.

**1** Obtain a copy of the software installer package.

- From the software CD that came with your printer.
- From our website or the place where you purchased the printer.

**2** Run the installer, and then follow the instructions on the computer screen.

## Updating firmware

Some applications require a minimum device firmware level to operate correctly.

For more information on updating the device firmware, contact your sales representative.

**1** Open a web browser, and then type the printer IP address in the address field.

### Notes:

- View the printer IP address on the printer home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

**2** Click **Settings > Device > Update Firmware**.

**3** Browse to the flash file.

**4** Click **Upload**.

## Exporting or importing a configuration file

You can export the configuration settings of your printer into a text file, and then import the file to apply the settings to other printers.

**1** Open a web browser, and then type the printer IP address in the address field.

### Notes:

- View the printer IP address on the printer home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

**2** From the Embedded Web Server, click **Export Configuration** or **Import Configuration**.

**3** Follow the instructions on the screen.

- 4 If the printer supports applications, then do the following:
  - a Click **Apps** > select the application > **Configure**.
  - b Click **Export** or **Import**.

## Adding available options in the print driver

### For Windows users

- 1 Open the printers folder.
- 2 Select the printer you want to update, and then do either of the following:
  - For Windows 7 or later, select **Printer properties**.
  - For earlier versions, select **Properties**.
- 3 Navigate to the Configuration tab, and then select **Update Now - Ask Printer**.
- 4 Apply the changes.

### For Macintosh users

- 1 From System Preferences in the Apple menu, navigate to your printer, and then select **Options & Supplies**.
- 2 Navigate to the list of hardware options, and then add any installed options.
- 3 Apply the changes.

## Networking

### Connecting the printer to a Wi-Fi network

**Note:** This feature is available only in some printer models.

Make sure that Active Adapter is set to Auto. From the control panel, navigate to **Settings** > **OK** > **Network/Ports** > **OK** > **Network Overview** > **OK** > **Active Adapter** > **OK** > **Auto** > **OK**

- 1 From the control panel, navigate to:  
**Settings** > **OK** > **Network/Ports** > **OK** > **Wireless** > **OK** > **Setup On Printer Panel** > **OK** > **Choose Network** > **OK**

- 2 Select a Wi-Fi network, and then type the network password.

**Note:** For Wi-Fi-network-ready printer models, a prompt for Wi-Fi network setup appears during initial setup.

### Connecting the printer to a wireless network using Wi-Fi Protected Setup (WPS)

**Note:** This feature is available only in some printer models.

Before you begin, make sure that:

- The access point (wireless router) is WPS-certified or WPS-compatible. For more information, see the documentation that came with your access point.
- A wireless network adapter is installed in your printer. For more information, see the instructions that came with the adapter.
- Make sure that Active Adapter is set to Auto. From the control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Network Overview** > **OK** > **Active Adapter** > **OK** > **Auto** > **OK**

### Using the Push Button method

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Wireless** > **OK** > **Wi-Fi Protected Setup** > **OK** > **Start Push Button Method** > **OK**

- 2 Follow the instructions on the display.

### Using the personal identification number (PIN) method

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Wireless** > **OK** > **Wi-Fi Protected Setup** > **OK** > **Start PIN Method** > **OK**

- 2 Copy the eight-digit WPS PIN.

- 3 Open a web browser, and then type the IP address of your access point in the address field.

#### Notes:

- To know the IP address, see the documentation that came with your access point.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

- 4 Access the WPS settings. For more information, see the documentation that came with your access point.

- 5 Enter the eight-digit PIN, and then save the changes.

## Connecting a mobile device to the printer

**Note:** This feature is available only in some printer models.

Before connecting your mobile device, make sure to do the following:

- Enable Wi-Fi Direct® in the printer. From the control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Wireless** > **OK** > **Enable Wi-Fi Direct** > **OK** > **On** > **OK**

- View the Wi-Fi Direct SSID. From the control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Wi-Fi Direct** > **OK** > **SSID** > **OK**

- View the preshared key (PSK). From the control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Wi-Fi Direct** > **OK** > **Set PSK** > **OK**

## Connecting using Wi-Fi Direct

- 1 From the mobile device, go to the settings menu.
- 2 Enable Wi-Fi, and then tap **Wi-Fi Direct**.
- 3 Select the printer SSID.
- 4 Confirm the connection on the printer control panel.

## Connecting using Wi-Fi

- 1 From the mobile device, go to the settings menu.
- 2 Tap **Wi-Fi**, and then select the printer SSID.

**Note:** The string “DIRECT-xy” (where xy are two random characters) is added before the SSID.

- 3 Enter the preshared key.

**Note:** The preshared key is the password.

## Deactivating the Wi-Fi network

**Note:** This feature is available only in some printer models.

- 1 From the printer control panel, navigate to:

**Settings** > **OK** > **Network/Ports** > **OK** > **Network Overview** > **OK** > **Active Adapter** > **OK** > **Standard Network** > **OK**

- 2 Follow the instructions on the display.

## Checking the printer connectivity

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Reports** > **OK** > **Network** > **OK** > **Network Setup Page** > **OK**

- 2 Check the first section of the page and confirm that the status is connected.

If the status is not connected, then the LAN drop may be inactive, or the network cable may be unplugged or malfunctioning. Contact your administrator for assistance.

## Configuring the SMTP server

- 1 Open a web browser, and then type the printer IP address in the address field.

**Notes:**

- View the printer IP address on the printer home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

- 2 Click **Settings** > **Device** > **Notifications** > **E-mail Alerts Setup**.

- 3 From the E-mail Setup section, configure the settings.
- 4 Click **Save**.

## Printing the Menu Settings Page

- 1 From the control panel, navigate to:  
**Settings** > **OK** > **Reports** > **OK**
- 2 Select **Menu Settings Page**, and then press **OK**.



# Secure the printer

## Locating the security slot

The printer is equipped with a security lock feature. Attach a security lock compatible with most laptop computers in the location shown to secure the printer in place.



## Erasing printer memory

To erase volatile memory or buffered data, turn off the printer.

To erase non-volatile memory or individual settings, device and network settings, security settings, and embedded solutions, do the following:

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Maintenance** > **OK** > **Out of Service Erase** > **OK** > **Sanitize all information on nonvolatile memory** > **OK** > **Yes** > **OK**

- 2 Select either **Start initial setup** or **Leave printer offline**, and then press **OK**.

## Restoring factory default settings

- 1 From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Restore Factory Defaults** > **OK** > **Restore all settings** > **OK**

- 2 Select **Yes**, and then press **OK**.

## Statement of Volatility

Your printer contains various types of memory that can store device and network settings, and user data.

| Type of memory      | Description   |
|---------------------|---|
| Volatile memory     | Your printer uses standard <i>random access memory</i> (RAM) to temporarily buffer user data during simple print jobs.  |
| Non-volatile memory | Your printer may use two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store operating system, device settings, and network information. |

Erase the content of any installed printer memory in the following circumstances:

- The printer is being decommissioned.
- The printer is being moved to a different department or location.
- The printer is being serviced by someone from outside your organization.
- The printer is being removed from your premises for service.
- The printer is being sold to another organization.

# Print

## Printing from a computer

**Note:** For labels, card stock, and envelopes, set the paper size and type in the printer before printing the document.

- 1 From the document that you are trying to print, open the Print dialog.
- 2 If necessary, adjust the settings.
- 3 Print the document.



## Printing from a mobile device

### Printing from a mobile device using Mopria Print Service

**Note:** This feature is available only in some printer models.

Mopria® Print Service is a mobile printing solution for mobile devices running on Android™ version 5.0 or later. It allows you to print directly to any Mopria-certified printer.

**Note:** Make sure that you download the Mopria Print Service application from the Google Play™ store and enable it in the mobile device.

- 1 From your Android mobile device, launch a compatible application or select a document from your file manager.
- 2 Tap  > **Print**.
- 3 Select a printer, and then adjust the settings, if necessary.
- 4 Tap .


### Printing from a mobile device using AirPrint

**Note:** This feature is available only in some printer models.

The AirPrint software feature is a mobile printing solution that allows you to print directly from Apple devices to an AirPrint-certified printer.

**Notes:**

- Make sure that the Apple device and the printer are connected to the same network. If the network has multiple wireless hubs, then make sure that both devices are connected to the same subnet.
- This application is supported only in some Apple devices.

- 1 From your mobile device, select a document from your file manager or launch a compatible application.
- 2 Tap  > **Print**.




- 3 Select a printer, and then adjust the settings, if necessary.
- 4 Print the document.

## Printing from a mobile device using Wi-Fi Direct®

**Note:** This feature is available only in some printer models.

Wi-Fi Direct is a printing service that lets you print to any Wi-Fi Direct-ready printer.

**Note:** Make sure that the mobile device is connected to the printer wireless network. For more information, see [“Connecting a mobile device to the printer” on page 22](#).

- 1 From your mobile device, launch a compatible application or select a document from your file manager.
- 2 Depending on your mobile device, do one of the following:
  - Tap  > **Print**.
  - Tap  > **Print**.
  - Tap  > **Print**.
- 3 Select a printer, and then adjust the settings, if necessary.
- 4 Print the document.

## Configuring confidential jobs

- 1 Open a web browser, and then type the printer IP address in the address field.

**Notes:**

- View the printer IP address on the home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

- 2 Click **Settings > Security > Confidential Print Setup**.
- 3 Configure the settings.

| Use                         | To   |
|-----------------------------|--|
| Max Invalid PIN             | Set the number of times an invalid PIN can be entered.<br><b>Note:</b> When the limit is reached, the print jobs for that user name are deleted.   |
| Confidential Job Expiration | Set the expiration time for confidential print jobs.<br><b>Note:</b> Confidential held jobs are stored in the printer until they are released or deleted manually.   |
| Repeat Job Expiration       | Set the expiration time for a repeat print job.<br><b>Note:</b> Repeat held jobs are stored in the printer memory for reprinting.  |
| Verify Job Expiration       | Set the expiration time that the printer prints a copy before printing the remaining copies.<br><b>Note:</b> Verify jobs print one copy to check if it is satisfactory before printing the remaining copies. |

| Use                         | To  |
|-----------------------------|---|
| Reserve Job Expiration      | Set the expiration time that the printer stores print jobs.<br><b>Note:</b> Reserve held jobs are automatically deleted after printing. |
| Require All Jobs to be Held | Set the printer to hold all print jobs.   |
| Keep duplicate documents    | Set the printer to print all documents with the same file name.   |

## Printing confidential and other held jobs

### For Windows users

- 1 With a document open, click **File > Print**.
- 2 Click **Properties, Preferences, Options, or Setup**.
- 3 Click **Print and Hold**.
- 4 Select **Use Print and Hold**, and then assign a user name.
- 5 Select the print job type (Confidential, Repeat, Reserve, or Verify).  
If the print job is confidential, then enter a four-digit PIN.
- 6 Click **OK** or **Print**.
- 7 From the printer control panel, release the print job.
  - For confidential print jobs, navigate to:  
**Held jobs > OK > select your user name > OK > Confidential > OK > enter the PIN > OK > select the print job > OK > configure the settings > OK > Print > OK**
  - For other print jobs, navigate to:  
**Held jobs > OK > select your user name > OK > select the print job > OK > configure the settings > OK > Print > OK**

### For Macintosh users

- 1 With a document open, choose **File > Print**.
- 2 From the Preview or Media & Quality menu, choose **PIN Printing**.
- 3 Enable **Print with PIN**, and then enter a four-digit PIN.
- 4 Click **Print**.
- 5 From the printer control panel, release the print job. Navigate to:  
**Held jobs > OK > select your computer name > OK > Confidential > OK > enter the PIN > OK > select the print job > OK > Print > OK**

## Printing a font sample list

1 From the control panel, navigate to:

**Settings** > **OK** > **Reports** > **OK** > **Print** > **OK** > **Print Fonts** > **OK**

2 Select a font sample, and then press **OK**.

## Placing separator sheets between copies



1 From the control panel, navigate to:

**Settings** > **OK** > **Print** > **OK** > **Layout** > **OK** > **Separator Sheets** > **OK** > **Between Copies** > **OK**

2 Print the document.

## Canceling a print job

### From the printer control panel

1 From the control panel, press  twice, and then press .

2 Select a print job to cancel, and then press **OK**.

### From the computer

1 Depending on the operating system, do either of the following:

- Open the printers folder, and then select your printer.
- From the System Preferences in the Apple menu, navigate to your printer.

2 Select a print job to cancel.

## Adjusting toner darkness

1 From the control panel, navigate to:

**Settings** > **OK** > **Print** > **OK** > **Quality** > **OK** > **Toner Darkness** > **OK**

2 Adjust the setting, and then press **OK**.

# Use printer menus

## Menu map

|   |   |   |
|---|---|---|
| Device  | <ul style="list-style-type: none"> <li>• <a href="#">Preferences</a></li> <li>• <a href="#">Eco-Mode</a></li> <li>• <a href="#">Remote Operator Panel<sup>1</sup></a></li> <li>• <a href="#">Notifications</a></li> </ul>   | <ul style="list-style-type: none"> <li>• <a href="#">Power Management</a></li> <li>• <a href="#">Restore Factory Defaults</a></li> <li>• <a href="#">Maintenance</a></li> <li>• <a href="#">About this Printer</a></li> </ul>   |
| Print   | <ul style="list-style-type: none"> <li>• <a href="#">Layout</a></li> <li>• <a href="#">Setup</a></li> <li>• <a href="#">Quality</a></li> </ul>  | <ul style="list-style-type: none"> <li>• <a href="#">PostScript</a></li> <li>• <a href="#">PCL</a></li> <li>• <a href="#">Image</a></li> </ul>  |
| Paper   | <ul style="list-style-type: none"> <li>• <a href="#">Tray Configuration</a></li> </ul>  | <ul style="list-style-type: none"> <li>• <a href="#">Media Configuration</a></li> </ul>   |
| Network/Ports   | <ul style="list-style-type: none"> <li>• <a href="#">Network Overview</a></li> <li>• <a href="#">Wireless<sup>2</sup></a></li> <li>• <a href="#">Ethernet</a></li> <li>• <a href="#">TCP/IP</a></li> <li>• <a href="#">SNMP</a></li> <li>• <a href="#">IPSec</a></li> </ul> | <ul style="list-style-type: none"> <li>• <a href="#">802.1x</a></li> <li>• <a href="#">LPD Configuration</a></li> <li>• <a href="#">HTTP/FTP Settings</a></li> <li>• <a href="#">USB</a></li> <li>• <a href="#">Restrict external network access</a></li> <li>• <a href="#">Wi-Fi Direct</a></li> </ul> |
| Security*   | <ul style="list-style-type: none"> <li>• <a href="#">Login methods</a></li> <li>• <a href="#">Certificate Management</a></li> <li>• <a href="#">Login Restrictions</a></li> </ul>   | <ul style="list-style-type: none"> <li>• <a href="#">Confidential Print Setup</a></li> <li>• <a href="#">Erase Temporary Data Files</a></li> <li>• <a href="#">Miscellaneous</a></li> </ul>   |
| Reports   | <ul style="list-style-type: none"> <li>• <a href="#">Menu Settings Page</a></li> <li>• <a href="#">Device</a></li> </ul>  | <ul style="list-style-type: none"> <li>• <a href="#">Print</a></li> <li>• <a href="#">Network</a></li> </ul>  |
| <a href="#">Troubleshooting</a>   | Print Quality Test Pages  |   |
| <p><sup>1</sup> Can be configured only from the Embedded Web Server.</p> <p><sup>2</sup> Available only in some printer models.</p> |   |   |

## Device

### Preferences

| Menu item        | Description   |
|------------------|---|
| Display Language | Set the language of the text that appears on the display.                 |
| Country/Region   | Identify the country or region that the printer is configured to operate. |

**Note:** An asterisk (\*) next to a value indicates the factory default setting.

| Menu item   | Description  |
|---|--|
| <b>Run Initial Setup</b><br>Yes<br>No*  | Run the setup wizard.  |
| <b>Displayed information</b><br>Display Text 1<br>Display Text 2  | Specify the information to appear on the home screen.  |
| <b>Date and Time</b><br>Configure<br>Current Date and Time<br>Manually Set Date and Time<br>Date Format [MM-DD-YYYY*]<br>Time Format [12 hour A.M./P.M.*]<br>Time Zone [USA/Canada EST*]<br>Network Time Protocol<br>Enable NTP<br>NTP Server | Configure the printer date and time.   |
| <b>Paper Sizes</b><br>U.S.*<br>Metric   | Specify the unit of measurement for paper sizes.<br><br><b>Note:</b> The country or region selected in the initial setup wizard determines the initial paper size setting. |
| <b>Screen Timeout</b><br>5–300 (60*)  | Set the idle time in seconds before the display shows the home screen, or before the printer logs out a user account automatically.  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.   |  |

## Eco-Mode

| Menu item  | Description   |
|--|---|
| <b>Print</b><br>Sides<br>1-Sided*<br>2-Sided   | Specify whether to print on one side or two sides of the paper. |
| <b>Print</b><br>Pages per Side<br>Off*<br>2 pages per side<br>3 pages per side<br>4 pages per side<br>6 pages per side<br>9 pages per side<br>12 pages per side<br>16 pages per side | Print multiple page images on one side of a sheet of paper.     |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.  |   |



| Menu item   | Description   |
|---|---|
| <b>Print</b><br>Toner Darkness<br>Light<br>Normal*<br>Dark                          | Determine the lightness or darkness of text images. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

## Remote Operator Panel

| Menu item   | Description   |
|---|---|
| <b>External VNC Connection</b><br>Don't Allow*<br>Allow                             | Connect an external Virtual Network Computing (VNC) client to the remote control panel.   |
| <b>Authentication Type</b><br>None*<br>Standard Authentication                      | Set the authentication type when accessing the VNC client server.   |
| <b>VNC Password</b>   | Specify the password to connect to the VNC client server.<br><b>Note:</b> This menu item appears only if Authentication Type is set to Standard Authentication. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

## Notifications

| Menu item  | Description  |
|--|--|
| <b>Supplies</b><br>Show Supply Estimates<br>Show estimates*<br>Do not show estimates | Show the estimated status of the supplies.   |
| <b>Supplies</b><br>Custom Supply Notifications                                       | Configure notification settings when the printer requires user intervention.<br><b>Note:</b> This menu item appears only in the Embedded Web Server. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.  |  |

| Menu item  | Description   |
|--|---|
| <b>E-mail Alerts Setup</b><br>E-mail Setup<br>Primary SMTP Gateway<br>Primary SMTP Gateway Port (25*)<br>Secondary SMTP Gateway<br>Secondary SMTP Gateway Port (25*)<br>SMTP Timeout (30 seconds*)<br>Reply Address<br>Always use SMTP default Reply Address(Off*)<br>Use SSL/TLS(Disabled*)<br>Require Trusted Certificate(On*)<br>SMTP Server Authentication<br>(No authentication required*)<br>Device-Initiated E-mail(None*)<br>Device Userid<br>Device Password<br>NTLM Domain<br>Disable "SMTP server not set up" error(Off*) | Configure the e-mail settings of the printer.<br><b>Note:</b> This menu item appears only in the Embedded Web Server. |
| <b>Error Prevention</b><br>Jam Assist<br>Off<br>On*  | Set the printer to check for jammed paper automatically.  |
| <b>Error Prevention</b><br>Auto Continue<br>Disabled<br>5–255 (5*)   | Let the printer continue processing or printing a job automatically after clearing certain attendance conditions.     |
| <b>Error Prevention</b><br>Auto Reboot<br>Auto Reboot<br>Reboot always*<br>Reboot never<br>Reboot when idle  | Set the printer to restart when an error occurs.  |
| <b>Error Prevention</b><br>Auto Reboot<br>Max Auto Reboots<br>1–20 (2*)  | Set the number of automatic reboots that the printer can perform.   |
| <b>Error Prevention</b><br>Auto Reboot<br>Auto Reboot Window<br>1–525600 (720*)  | Set the number of seconds before the printer performs an automatic reboot.  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.  |   |

| Menu item   | Description  |
|---|--|
| <b>Error Prevention</b><br>Auto Reboot<br>Auto Reboot Counter                       | Show a read-only information of the reboot counter.  |
| <b>Error Prevention</b><br>Display Short Paper Error<br>Auto-clear*<br>On           | Set the printer to show a message when a short paper error occurs.<br><b>Note:</b> Short paper refers to the size of the paper loaded. |
| <b>Error Prevention</b><br>Page Protect<br>Off*<br>On                               | Set the printer to process the entire page into the memory before printing it.   |
| <b>Jam Content Recovery</b><br>Jam Recovery<br>Auto*<br>Off<br>On                   | Set the printer to reprint jammed pages.<br><b>Note:</b> In some printer models, Off is the default setting.                           |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Power Management

| Menu item   | Description   |
|---|---|
| <b>Sleep Mode Profile</b><br>Print from Sleep Mode<br>Stay awake after printing<br>Enter Sleep Mode after printing*                                       | Set the printer to stay in Ready mode or return to Sleep mode after printing. |
| <b>Timeouts</b><br>Sleep Mode<br>1–120 minutes (15*)  | Set the idle time before the printer begins operating in Sleep mode.          |
| <b>Timeouts</b><br>Hibernate Timeout<br>Disabled<br>1 hour<br>2 hours<br>3 hours<br>6 hours<br>1 day<br>2 days<br>3 days*<br>1 week<br>2 weeks<br>1 month | Set the time before the printer turns off.                                    |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.   |   |

| Menu item  | Description   |
|--|---|
| <b>Timeouts</b><br>Hibernate Timeout on Connection<br>Hibernate<br>Do Not Hibernate* | Set Hibernate Timeout to turn off the printer while an active Ethernet connection exists. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.  |   |

## Restore Factory Defaults

| Menu item   | Description                                   |
|---|---|
| <b>Restore Settings</b><br>Restore all settings<br>Restore printer settings<br>Restore network settings | Restore the printer factory default settings. |

## Maintenance

### Config Menu

| Menu item   | Description  |
|---|--|
| <b>USB Configuration</b><br>USB PnP<br>1*<br>2  | Change the USB driver mode of the printer to improve its compatibility with a personal computer. |
| <b>USB Configuration</b><br>USB Speed<br>Full<br>Auto*  | Set the USB port to run at full speed and disable its high-speed capabilities.                   |
| <b>Tray Configuration</b><br>Tray Linking<br>Automatic*<br>Off                                    | Set the printer to link the trays that have the same paper type and paper size settings.         |
| <b>Tray Configuration</b><br>Show Tray Insert Message<br>Off<br>Only for unknown sizes*<br>Always | Show the <b>Tray Insert</b> message.   |
| <b>Tray Configuration</b><br>A5 Loading<br>Short Edge<br>Long Edge*                               | Specify the page orientation when loading A5 paper size.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.               |  |

| Menu item   | Description  |
|---|--|
| <b>Tray Configuration</b><br>Paper Prompts<br>Auto*<br>Multipurpose Feeder<br>Manual Paper                                      | Set the paper source that the user fills when a prompt to load paper appears.    |
| <b>Tray Configuration</b><br>Envelope Prompts<br>Auto*<br>Multipurpose Feeder<br>Manual Envelope                                | Set the paper source that the user fills when a prompt to load envelope appears. |
| <b>Tray Configuration</b><br>Action for Prompts<br>Prompt user*<br>Continue<br>Use current                                      | Set the printer to resolve paper- or envelope-related change prompts.            |
| <b>Reports</b><br>Menu Settings Page<br>Event Log<br>Event Log Summary  | Print reports about printer menu settings, status, and event logs.               |
| <b>Supply Usage And Counters</b><br>Clear Supply Usage History<br>Reset Black Imaging Unit Counter<br>Reset Maintenance Counter | Reset the supply page counter or view the total printed pages.                   |
| <b>Printer Emulations</b><br>PS Emulation<br>Off<br>On*   | Set the printer to recognize and use the PS data stream.                         |
| <b>Printer Emulations</b><br>Emulator Security<br>Page Timeout<br>0–60 (60*)  | Set the page timeout during emulation.   |
| <b>Printer Emulations</b><br>Emulator Security<br>Reset Emulator After Job<br>Off*<br>On  | Reset the emulator after a print job.  |
| <b>Printer Emulations</b><br>Emulator Security<br>Disable Printer Message Access<br>On*<br>Off                                  | Disable access to the printer message during emulation.                          |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.   |  |

| Menu item   | Description  |
|---|--|
| <b>Print Configuration</b><br>Font Sharpening<br>0–150 (24*)                        | Set a text point-size value below which the high-frequency screens are used when printing font data.   |
| <b>Print Configuration</b><br>Print Density<br>Disabled*<br>1–5                     | Adjust the toner density when printing documents.  |
| <b>Device Operations</b><br>Quiet Mode<br>Off*<br>On                                | Set the printer to reduce the amount of noise that it makes when printing.<br><br><b>Note:</b> Enabling this setting slows down the overall performance of the printer.  |
| <b>Device Operations</b><br>Panel Menus<br>Enable*<br>Disable                       | Set the printer to show the control panel menus.<br><br><b>Note:</b> This menu item appears only in the Embedded Web Server.   |
| <b>Device Operations</b><br>Safe Mode<br>Off*<br>On                                 | Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues.<br><br>For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.<br><br><b>Note:</b> This setting cannot be used when the tray is not fully inserted or the tray sensor is damaged. |
| <b>Device Operations</b><br>Clear Custom Status                                     | Erase all custom messages.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Out of Service Erase

| Menu item  | Description   |
|--|---|
| <b>Erase Printer Memory</b><br>Printer Memory Last Sanitized<br>Sanitize all information on nonvolatile memory<br>Erase all printer and network settings | Clear all settings and applications that are stored in the printer. |

## About this Printer

| Menu item                 | Description   |
|---------------------------|---|
| <b>Asset Tag</b>          | Show the serial number of the printer.                              |
| <b>Printer's Location</b> | Identify the printer location. The maximum length is 63 characters. |
| <b>Contact</b>            | Personalize the printer name. The maximum length is 63 characters.  |

# Print

## Layout

| Menu item   | Description  |
|---|--|
| <b>Sides</b><br>1-Sided*<br>2-Sided   | Specify whether to print on one side or two sides of the paper.  |
| <b>Flip Style</b><br>Long Edge*<br>Short Edge   | Determine which side of the paper is bound when performing two-sided printing.<br><br><b>Note:</b> Depending on the option selected, the printer automatically offsets each printed information of the page to bind the job correctly. |
| <b>Blank Pages</b><br>Print<br>Do Not Print*  | Print blank pages that are included in a print job.  |
| <b>Collate</b><br>Off [1,1,1,2,2,2]*<br>On [1,2,1,2,1,2]  | Keep the pages of a print job stacked in sequence, particularly when printing multiple copies of the job.  |
| <b>Separator Sheets</b><br>None*<br>Between Copies<br>Between Jobs<br>Between Pages   | Insert blank separator sheets when printing.   |
| <b>Separator Sheet Source</b><br>Tray [x] (1*)<br>Multipurpose Feeder   | Specify the paper source for the separator sheet.  |
| <b>Pages per Side</b><br>Off*<br>2 pages per side<br>3 pages per side<br>4 pages per side<br>6 pages per side<br>9 pages per side<br>12 pages per side<br>16 pages per side | Print multiple page images on one side of a sheet of paper.  |
| <b>Pages per Side Ordering</b><br>Horizontal*<br>Reverse Horizontal<br>Vertical<br>Reverse Vertical   | Specify the positioning of multiple page images when using Pages per Side.<br><br><b>Note:</b> The positioning depends on the number of page images and their page orientation.  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.   |  |

| Menu item   | Description  |
|---|--|
| <b>Pages per Side Orientation</b><br>Auto*<br>Landscape<br>Portrait                 | Specify the orientation of a multiple-page document when using Pages per Side. |
| <b>Pages per Side Border</b><br>None*<br>Solid                                      | Print a border around each page image when using Pages per Side.               |
| <b>Copies</b><br>1–9999 (1*)  | Specify the number of copies for each print job.                               |
| <b>Print Area</b><br>Normal*<br>Whole Page  | Set the printable area on a sheet of paper.                                    |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Setup

| Menu item   | Description  |
|---|--|
| <b>Printer Language</b><br>PCL Emulation*<br>PS Emulation                           | Set the printer language.<br><br><b>Note:</b> Setting a printer language default does not prevent a software program from sending print jobs that use another printer language.  |
| <b>Resource Save</b><br>Off*<br>On  | Determine what the printer does with downloaded resources, such as fonts and macros, when it receives a job that requires more than the available memory.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• When set to Off, the printer retains downloaded resources only until memory is needed. Resources associated with the inactive printer language are deleted.</li> <li>• When set to On, the printer preserves all the permanent downloaded resources across all language switches. When necessary, the printer shows memory full messages instead of deleting permanent resources.</li> </ul> |
| <b>Print All Order</b><br>Alphabetical*<br>Newest First<br>Oldest First             | Specify the order when you choose to print all held and confidential jobs.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |



## Quality

| Menu item   | Description   |
|---|---|
| <b>Print Resolution</b><br>300 dpi<br>600 dpi*<br>1200 Image Q<br>2400 Image Q      | Set the resolution for the text and images on the printed output.<br><b>Note:</b> Resolution is determined in dots per inch or image quality. |
| <b>Toner Darkness</b><br>Light<br>Normal*<br>Dark                                   | Determine the lightness or darkness of text images.   |
| <b>Halftone</b><br>Normal*<br>Detail  | Enhance the printed output to have smoother lines with sharper edges.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

## PostScript

| Menu item   | Description  |
|---|--|
| <b>Print PS Error</b><br>Off*<br>On   | Print a page that describes the PostScript® error.<br><b>Note:</b> When an error occurs, processing of the job stops, the printer prints an error message, and the rest of the print job is flushed. |
| <b>Minimum Line Width</b><br>1–30 (2*)  | Set the minimum stroke width.<br><b>Note:</b> Jobs printed in 1200 dpi use the value directly.   |
| <b>Lock PS Startup Mode</b><br>Off<br>On*   | Disable the SysStart file.   |
| <b>Wait Timeout</b><br>15–65535 (40 seconds*)<br>Disabled                           | Set the printer to wait for more data before canceling a print job.  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## PCL

| Menu item   | Description                                   |
|---|---|
| <b>Font Name</b><br>[List of available fonts] (Courier*)                            | Select a font from the specified font source. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

| Menu item  | Description   |
|--|---|
| <b>Symbol Set</b><br>[List of available symbol set] (10U PC-8*)  | Specify the symbol set for each font name.<br><b>Note:</b> A symbol set is a set of alphabetic and numeric characters, punctuation, and special symbols. Symbol sets support the different languages or specific programs such as math symbols for scientific text.   |
| <b>Pitch</b><br>0.08–100.00 (10.00*)   | Specify the pitch for fixed or monospaced fonts.<br><b>Note:</b> Pitch refers to the number of fixed-space characters in a horizontal inch of type.   |
| <b>Orientation</b><br>Portrait*<br>Landscape   | Specify the orientation of text and graphics on the page.   |
| <b>Lines per Page</b><br>1–255   | Specify the number of lines of text for each page printed through the PCL® data stream.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>This menu item activates vertical escapement that causes the selected number of requested lines to print between the default margins of the page.</li> <li>60 is the U.S. factory default setting. 64 is the international factory default setting.</li> </ul>              |
| <b>PCL5 Minimum Line Width</b><br>1–30 (2*)  | Set the initial minimum stroke width.<br><b>Note:</b> Jobs printed in 1200 dpi use the value directly.  |
| <b>PCLXL Minimum Line Width</b><br>1–30 (2*)   |   |
| <b>A4 Width</b><br>198 mm*<br>203 mm   | Set the width of the logical page on A4-size paper.<br><b>Note:</b> Logical page is the space on the physical page where data is printed.   |
| <b>Auto CR after LF</b><br>Off*<br>On  | Set the printer to perform a carriage return after a line feed control command.<br><b>Note:</b> Carriage return is a mechanism that commands the printer to move the position of the cursor to the first position on the same line.   |
| <b>Auto LF after CR</b><br>Off*<br>On  | Set the printer to perform a line feed after a carriage return control command.   |
| <b>Tray Renumber</b><br>Assign MP Feeder<br>Assign Tray [x]<br>Assign Manual Paper<br>Assign Manual Envelope | Configure the printer to work with a different print driver or custom application that uses a different set of source assignments to request a given paper source.<br>Choose from the following options:<br>Off*—The printer uses the factory default paper source assignments.<br>None—The paper source ignores the Select Paper Feed command.<br>0–199—Select a numeric value to assign a custom value to a paper source. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.                          |   |

| Menu item   | Description  |
|---|--|
| <b>Tray Renumber</b><br>View Factory Defaults                                       | Show the factory default value assigned for each paper source.   |
| <b>Tray Renumber</b><br>Restore Defaults  | Restore the tray renumber values to their factory defaults.  |
| <b>Print Timeout</b><br>1–255 (90 seconds*)<br>Disabled                             | Set the printer to end a print job after it has been idle for the specified amount of time in seconds. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Image

| Menu item  | Description   |
|--|---|
| <b>Auto Fit</b><br>On<br>Off*  | Select the best available paper size and orientation setting for an image.<br><b>Note:</b> When set to On, this menu item overrides the scaling and orientation settings for the image. |
| <b>Invert</b><br>Off*<br>On  | Invert bitonal monochrome images.<br><b>Note:</b> This menu item does not apply to GIF or JPEG image formats.   |
| <b>Scaling</b><br>Anchor Top Left<br>Best Fit*<br>Anchor Center<br>Fit Height/Width<br>Fit Height<br>Fit Width | Adjust the image to fit the printable area.<br><b>Note:</b> When Auto Fit is set to On, Scaling is automatically set to Best Fit.   |
| <b>Orientation</b><br>Portrait*<br>Landscape<br>Reverse Portrait<br>Reverse Landscape                          | Specify the orientation of text and graphics on the page.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.                            |   |

# Paper

## Tray Configuration

| Menu item  | Description   |
|--|---|
| <b>Default Source</b><br>Tray [x] (1*)<br>MP Feeder<br>Manual Paper<br>Manual Envelope | Set the paper source for all print jobs.<br><br><b>Note:</b> MP Feeder appears only when Configure MP is set to Cassette.   |
| <b>Paper Size/Type</b><br>Tray [x]<br>MP Feeder<br>Manual Paper<br>Manual Envelope     | Specify the paper size or paper type loaded in each paper source.   |
| <b>Substitute Size</b><br>Off<br>Statement/A5<br>Letter/A4<br>All Listed*              | Set the printer to substitute a specified paper size if the requested size is not loaded in any paper source.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• Off prompts the user to load the required paper size.</li> <li>• Statement/A5 prints A5-size document on statement when loading statement, and statement-size jobs on A5 paper size when loading A5.</li> <li>• Letter/A4 prints A4-size document on letter when loading letter, and letter-size jobs on A4 paper size when loading A4.</li> <li>• All Listed substitutes Letter/A4.</li> </ul> |
| <b>Configure MP</b><br>Cassette*<br>Manual<br>First                                    | Set the printer when to pick paper loaded in the multipurpose feeder.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• When set to Cassette, the printer treats the multipurpose feeder like a tray.</li> <li>• When set to Manual, the printer treats the multipurpose feeder like a manual feeder.</li> <li>• When set to First, the printer picks paper from the multipurpose feeder until it is empty, regardless of the required paper source or paper size.</li> </ul>   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.    |   |

## Media Configuration

### Universal Setup

| Menu item   | Description   |
|---|---|
| <b>Units of Measure</b><br>Inches<br>Millimeters                                    | Specify the unit of measurement for the universal paper.<br><b>Note:</b> Inches is the U.S. factory default setting. Millimeters is the international factory default setting.      |
| <b>Portrait Width</b><br>3.90–14.17 inches (8.50*)<br>99–360 mm (216*)              | Set the portrait width of the universal paper.  |
| <b>Portrait Height</b><br>3.90–14.17 inches (14*)<br>99–360 mm (356*)               | Set the portrait height of the universal paper.   |
| <b>Feed Direction</b><br>Short Edge*<br>Long Edge                                   | Set the printer to pick paper from the short edge or long edge direction.<br><b>Note:</b> Long Edge appears only when the longest edge is shorter than the maximum width supported. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

### Media Types

| Menu item   | Description   |
|---|---|
| Plain Paper<br>Card Stock<br>Recycled<br>Labels<br>Bond<br>Envelope<br>Rough Envelope<br>Letterhead<br>Preprinted<br>Colored Paper<br>Light<br>Heavy<br>Rough/Cotton<br>Custom Type [X] | Specify the texture, weight, and orientation of the paper loaded. |

## Network/Ports

### Network Overview

| Menu item   | Description   |
|---|---|
| <b>Active Adapter</b><br>Auto*<br>Standard Network<br>Wireless                      | Specify the type of the network connection.   |
| <b>Network Status</b>   | Show the connectivity status of the printer network.  |
| <b>Display Network Status on Printer</b><br>Off<br>On*                              | Show the network status on the display.   |
| <b>Speed, Duplex</b>  | Show the speed of the currently active network card.  |
| <b>IPv4</b>   | Show the IPv4 address.  |
| <b>All IPv6 Addresses</b>   | Show all IPv6 addresses.  |
| <b>Reset Print Server</b><br>Start  | Reset all active network connections to the printer.<br><b>Note:</b> This setting removes all network configuration settings. |
| <b>Network Job Timeout</b><br>Off<br>On* (90 seconds)                               | Set the time before the printer cancels a network print job.  |
| <b>Banner Page</b><br>Off*<br>On  | Print a banner page.  |
| <b>Enable Network Connections</b><br>Enable*<br>Disable                             | Enable or disable all network connections.  |
| <b>Enable LLDP</b><br>Off*<br>On  | Enable Link Layer Discovery Protocol (LLDP) in the printer.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

### Wireless

**Note:** This menu is available only in some printer models.

| Menu item   | Description   |
|---|---|
| <b>Setup On Printer Panel</b><br>Choose Network<br>Add Wi-Fi Network <ul style="list-style-type: none"> <li>• Network Name</li> <li>• Network Mode               <ul style="list-style-type: none"> <li>Infrastructure</li> </ul> </li> <li>• Wireless Security Mode               <ul style="list-style-type: none"> <li>Disabled*</li> <li>WEP</li> <li>WPA2/WPA - Personal</li> <li>WPA2 - Personal</li> </ul> </li> </ul> | Determine the wireless network that the printer connects to.<br><b>Note:</b> This menu item appears as <i>Wireless Connection Setup</i> in the Embedded Web Server.   |
| <b>Wi-Fi Protected Setup</b><br>Start Push Button Method<br>Start PIN Method  | Establish a wireless network and enable network security.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• Start Push Button Method connects the printer to a wireless network when buttons on both the printer and the access point (wireless router) are pressed within a given time.</li> <li>• Start PIN Method connects the printer to a wireless network when a PIN on the printer is entered into the wireless settings of the access point.</li> </ul> |
| <b>Enable Wi-Fi Direct</b><br>On<br>Off*  | Set the printer to connect directly to Wi-Fi devices.   |
| <b>Compatibility</b><br>802.11b/g/n (2.4GHz)*   | Specify the wireless standard for the wireless network.   |
| <b>Wireless Security Mode</b><br>Disabled*<br>WEP<br>WPA2/WPA-Personal<br>WPA2-Personal<br>802.1x - RADIUS  | Set the type of security for connecting the printer to wireless devices.  |
| <b>WEP Authentication Mode</b><br>Auto*<br>Open<br>Shared   | Set the type of Wireless Encryption Protocol (WEP) used by the printer.<br><b>Note:</b> This menu item appears only if Wireless Security Mode is set to WEP.  |
| <b>Set WEP Key</b>  | Specify a WEP password for secure wireless connection.<br><b>Note:</b> This menu item appears only if Wireless Security Mode is set to WEP.   |
| <b>WPA2-Personal</b><br>AES*  | Enable wireless security through WPA2.<br><b>Note:</b> This menu item appears only if Wireless Security Mode is set to WPA2-Personal.   |

| Menu item  | Description   |
|--|---|
| <b>Set PSK</b>   | Set the password for secure wireless connection.<br><b>Note:</b> This menu item appears only if Wireless Security Mode is set to WPA2/WPA-Personal or WPA2-Personal.                                  |
| <b>WPA2/WPA-Personal</b><br>AES*   | Enable wireless security through WPA2/WPA.<br><b>Note:</b> This menu item appears only if Wireless Security Mode is set to WPA2/WPA-Personal.   |
| <b>802.1x Encryption Mode</b><br>WPA+<br>WPA2*                           | Enable wireless security through 802.1x standard.<br><b>Note:</b> This menu item appears only if Wireless Security Mode is set to 802.1x - Radius.  |
| <b>IPv4</b><br>Enable DHCP<br>On*<br>Off                                 | Enable Dynamic Host Configuration Protocol (DHCP).<br><b>Note:</b> DHCP is a standard protocol that allows a server to distribute IP addressing and configuration information dynamically to clients. |
| <b>IPv4</b><br>Set Static IP Address<br>IP Address<br>Netmask<br>Gateway | Set the static IP address of your printer.  |
| <b>IPv6</b><br>Enable IPv6<br>On*<br>Off                                 | Enable IPv6 in the printer.   |
| <b>IPv6</b><br>Enable DHCPv6<br>Off*<br>On                               | Enable DHCPv6 in the printer.   |
| <b>IPv6</b><br>Stateless Address Autoconfiguration<br>Off<br>On*         | Set the network adapter to accept the automatic IPv6 address configuration entries provided by a router.  |
| <b>IPv6</b><br>DNS Address   | Specify the DNS server address.   |
| <b>IPv6</b><br>Address Prefix<br>0–128 (64*)                             | Specify the address prefix.   |
| <b>IPv6</b><br>All IPv6 Addresses  | Show all IPv6 addresses.  |
| <b>IPv6</b><br>All IPv6 Router Addresses                                 | Show all IPv6 router addresses.   |



| Menu item                                  | Description  |
|--|--|
| <b>Network Address</b><br>UAA<br>LAA       | View the network addresses.  |
| <b>PCL SmartSwitch</b><br>On*<br>Off       | Set the printer to switch automatically to PCL emulation when a print job requires it, regardless of the default printer language.<br><b>Note:</b> If PCL SmartSwitch is off, then the printer does not examine incoming data and uses the default printer language specified in the Setup menu. |
| <b>PS SmartSwitch</b><br>On*<br>Off        | Set the printer to switch automatically to PS emulation when a print job requires it, regardless of the default printer language.<br><b>Note:</b> If PS SmartSwitch is off, then the printer does not examine incoming data and uses the default printer language specified in the Setup menu.   |
| <b>Mac Binary PS</b><br>Auto*<br>On<br>Off | Set the printer to process Macintosh binary PostScript print jobs.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• On processes raw binary PostScript print jobs.</li> <li>• Off filters print jobs using the standard protocol.</li> </ul>  |

## Ethernet

| Menu item   | Description   |
|---|---|
| <b>Network Speed</b>  | Show the speed of an active network adapter.  |
| <b>IPv4</b><br>Enable DHCP<br>On*<br>Off  | Enable Dynamic Host Configuration Protocol (DHCP).<br><b>Note:</b> DHCP is a standard protocol that allows a server to distribute IP addressing and configuration information to clients in a dynamic manner. |
| <b>IPv4</b><br>Set Static IP Address<br>IP Address<br>Netmask<br>Gateway            | Set the static IP address of your printer.  |
| <b>IPv6</b><br>Enable IPv6<br>On*<br>Off  | Enable IPv6 in the printer.   |
| <b>IPv6</b><br>Enable DHCPv6<br>Off*<br>On  | Enable DHCPv6 in the printer.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

| Menu item   | Description  |
|---|--|
| <b>IPv6</b><br>Stateless Address Autoconfiguration<br>On*<br>Off                    | Set the network adapter to accept the automatic IPv6 address configuration entries provided by a router.   |
| <b>IPv6</b><br>DNS Address  | Specify the DNS server address.  |
| <b>IPv6</b><br>Address Prefix<br>0–128 (64*)  | Specify the address prefix.  |
| <b>IPv6</b><br>All IPv6 Addresses   | Show all IPv6 addresses.   |
| <b>IPv6</b><br>All IPv6 Router Addresses  | Show all IPv6 router addresses.  |
| <b>Network Address</b><br>UAA<br>LAA  | Show the printer Media Access Control (MAC) addresses: Locally Administered Address (LAA) and Universally Administered Address (UAA).<br><br><b>Note:</b> You can change the printer LAA manually.   |
| <b>PCL SmartSwitch</b><br>On*<br>Off  | Set the printer to switch automatically to PCL emulation when a print job requires it, regardless of the default printer language.<br><br><b>Note:</b> If PCL SmartSwitch is off, then the printer does not examine incoming data and uses the default printer language specified in the Setup menu. |
| <b>PS SmartSwitch</b><br>On*<br>Off   | Set the printer to switch automatically to PS emulation when a print job requires it, regardless of the default printer language.<br><br><b>Note:</b> If PS SmartSwitch is off, then the printer does not examine incoming data and uses the default printer language specified in the Setup menu.   |
| <b>Mac Binary PS</b><br>Auto*<br>On<br>Off  | Set the printer to process Macintosh binary PostScript print jobs.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• On processes raw binary PostScript print jobs.</li> <li>• Off filters print jobs using the standard protocol.</li> </ul>  |
| <b>Energy Efficient Ethernet</b><br>Auto*<br>On<br>Off                              | Reduce power consumption when the printer does not receive data from the Ethernet network.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## TCP/IP

**Note:** This menu appears only in network printers or printers attached to print servers.

| Menu item   | Description   |
|---|---|
| <b>Set Hostname</b>   | Set the current TCP/IP host name.   |
| <b>Domain Name</b>  | Set the domain name.<br><b>Note:</b> This menu item appears only in the Embedded Web Server.  |
| <b>Allow DHCP/BOOTP to update NTP server</b><br>On*<br>Off                          | Allow the DHCP and BOOTP clients to update the NTP settings of the printer.   |
| <b>Zero Configuration Name</b>  | Specify a service name for the zero configuration network.<br><b>Note:</b> This menu item appears only in the Embedded Web Server.  |
| <b>Enable Auto IP</b><br>On*<br>Off   | Assign an IP address automatically.   |
| <b>DNS Address</b>  | Specify the current Domain Name System (DNS) server address.  |
| <b>Backup DNS</b>   | Specify the backup DNS server addresses.  |
| <b>Backup DNS 2</b>   |   |
| <b>Backup DNS 3</b>   |   |
| <b>Domain Search Order</b>  | Specify a list of domain names to locate the printer and its resources that reside in different domains on the network.<br><b>Note:</b> This menu item appears only in the Embedded Web Server.   |
| <b>Enable DDNS</b><br>Off*<br>On  | Update the Dynamic DNS settings.  |
| <b>DDNS TTL</b>   | Specify the current DDNS settings.  |
| <b>Default TTL</b>  |   |
| <b>DDNS Refresh Time</b>  |   |
| <b>Enable mDNS</b><br>On*<br>Off  | Update multicast DNS settings.  |
| <b>WINS Address</b>   | Specify a server address for Windows Internet Name Service (WINS).  |
| <b>Enable BOOTP</b><br>Off*<br>On   | Allow the BOOTP to assign a printer IP address.   |
| <b>Restricted Server List</b>   | Specify an IP address for the TCP connections.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• This menu item appears only in the Embedded Web Server.</li> <li>• Use a comma to separate each IP address.</li> <li>• You can add up to 50 IP addresses.</li> </ul> |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

| Menu item  | Description  |
|--|--|
| <b>Restricted Server List Options</b><br>Block All Ports*<br>Block Printing Only<br>Block Printing and HTTP Only | Specify how the IP addresses in the list can access the printer functionality.<br><b>Note:</b> This menu item appears only in the Embedded Web Server. |
| <b>MTU</b>   | Specify a maximum transmission unit (MTU) parameter for the TCP connections.   |
| <b>Raw Print Port</b><br>1–65535 (9100*)   | Specify a raw port number for printers connected on a network.   |
| <b>Outbound Traffic Maximum Speed</b><br>Disabled*<br>Enabled  | Enable the printer maximum transfer rate.  |
| <b>Enable TLSv1.0</b><br>On*<br>Off  | Enable the TLSv1.0 protocol.   |
| <b>Enable TLSv1.1</b><br>On*<br>Off  | Enable the TLSv1.1 protocol.   |
| <b>SSL Cipher List</b>   | Specify the cipher algorithms to use for the SSL or the TLS connections.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.                              |  |

## SNMP

**Note:** This menu appears only in network printers or printers that are attached to print servers.

| Menu item  | Description  |
|--|--|
| <b>SNMP Versions 1 and 2c</b><br>Enabled<br>Off<br>On*<br>Allow SNMP Set<br>Off<br>On*<br>Enable PPM MIB<br>Off<br>On*<br>SNMP Community | Configure Simple Network Management Protocol (SNMP) versions 1 and 2c to install print drivers and applications. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.  |  |

| Menu item   | Description  |
|---|--|
| <b>SNMP Version 3</b><br>Enabled<br>Off<br>On*<br>Set Read/Write Credentials<br>User Name<br>Password<br>Set Read-only Credentials<br>User Name<br>Password<br>Authentication Hash<br>MD5<br>SHA1*<br>Minimum Authentication Level<br>No Authentication, No Privacy<br>Authentication, No Privacy<br>Authentication, Privacy*<br>Privacy Algorithm<br>DES<br>AES-128* | Configure SNMP version 3 to install and update the printer security. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.   |  |

## IPSec

**Note:** This menu appears only in network printers or printers that are attached to print servers.

| Menu item   | Description   |
|---|---|
| <b>Enable IPSec</b><br>Off*<br>On   | Enable Internet Protocol Security (IPSec).  |
| <b>Base Configuration</b><br>Default*<br>Compatibility<br>Secure                    | Set the IPSec base configuration.<br><br><b>Note:</b> This menu item appears only when Enable IPSec is set to On. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

| Menu item  | Description  |
|--|--|
| <b>DH (Diffie-Hellman) Group Proposal</b><br>modp2048 (14)*<br>modp3072 (15)<br>modp4069 (16)<br>modp6144 (17) | Set the IPSec encryption.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>DH (Diffie-Hellman) Group Proposal appears only when Base Configuration is set to Compatibility.</li> <li>IKE SA Lifetime (Hours) and IPSec SA Lifetime (Hours) appear only when Base Configuration is set to Secure.</li> </ul> |
| <b>IKE SA Lifetime (Hours)</b><br>1<br>2<br>4<br>8<br>24*  |  |
| <b>IPSec SA Lifetime (Hours)</b><br>1<br>2<br>4<br>8*<br>24  |  |
| <b>Proposed Encryption Method</b><br>3DES<br>AES*  | Specify the encryption and authentication methods to connect to a network securely.<br><br><b>Note:</b> These menu items appear only when Base Configuration is set to Compatibility.  |
| <b>Proposed Authentication Method</b><br>SHA1<br>SHA256*<br>SHA512   |  |
| <b>IPSec Device Certificate</b>  | Specify an IPSec certificate.<br><br><b>Note:</b> This menu item appears only when Enable IPSec is set to On.  |
| <b>Pre-Shared Key Authenticated Connections</b><br>Host [x]<br>Address<br>Key                                  | Configure the authenticated connections of the printer.<br><br><b>Note:</b> These menu items appear only when Enable IPSec is set to On.   |
| <b>Certificate Authenticated Connections</b><br>Host [x] Address[/subnet]<br>Address[/subnet]                  |  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.                            |  |

## 802.1x

**Note:** This menu appears only in network printers or printers that are attached to print servers.

| Menu item   | Description   |
|---|---|
| <b>Active</b><br>Off*<br>On   | Let the printer join networks that require authentication before allowing access. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

## LPD Configuration

**Note:** This menu appears only in network printers or printers that are attached to print servers.

| Menu item   | Description   |
|---|---|
| <b>LPD Timeout</b><br>0–65535 seconds (90*)   | Set the time-out value to stop the Line Printer Daemon (LPD) server from waiting indefinitely for hung or invalid print jobs.   |
| <b>LPD Banner Page</b><br>Off*<br>On  | Print a banner page for all LPD print jobs.<br><b>Note:</b> A banner page is the first page of a print job used as a separator of print jobs and to identify the originator of the print job request. |
| <b>LPD Trailer Page</b><br>Off*<br>On   | Print a trailer page for all LPD print jobs.<br><b>Note:</b> A trailer page is the last page of a print job.  |
| <b>LPD Carriage Return Conversion</b><br>Off*<br>On                                 | Enable carriage return conversion.<br><b>Note:</b> Carriage return is a mechanism that commands the printer to move the position of the cursor to the first position on the same line.                |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

## HTTP/FTP Settings

| Menu item   | Description  |
|---|--|
| <b>Enable HTTP Server</b><br>Off<br>On*   | Access the Embedded Web Server to monitor and manage the printer.  |
| <b>Enable HTTPS</b><br>Off<br>On*   | Configure the Hypertext Transfer Protocol Secure (HTTPS) settings. |
| <b>Force HTTPS Connections</b><br>On<br>Off*  | Force the printer to use the HTTPS connections.                    |
| <b>Enable FTP/TFTP</b><br>Off<br>On*  | Send files using FTP.  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

| Menu item   | Description  |
|---|--|
| <b>Local Domains</b>  | Specify domain names for HTTP and FTP servers.<br><b>Note:</b> This menu item appears only in the Embedded Web Server.                             |
| <b>HTTP Proxy IP Address</b>  | Configure the HTTP and FTP server settings.<br><b>Note:</b> HTTP Proxy IP Address and FTP Proxy IP Address appear only in the Embedded Web Server. |
| <b>FTP Proxy IP Address</b>   |  |
| <b>HTTP Default IP Port</b><br>1–65535 (80*)  |  |
| <b>HTTPS Device Certificate</b>   |  |
| <b>FTP Default IP Port</b><br>1–65535 (21*)   |  |
| <b>Timeout for HTTP/FTP Requests</b><br>1–299 (30*)                                 | Specify the amount of time before the server connection stops.   |
| <b>Retries for HTTP/FTP Requests</b><br>1–299 (3*)                                  | Set the number of retries to connect to the HTTP/FTP server.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## USB

| Menu item   | Description   |
|---|---|
| <b>PCL SmartSwitch</b><br>Off<br>On*  | Set the printer to switch to PCL emulation when a print job received through a USB port requires it, regardless of the default printer language.<br><b>Note:</b> If PCL SmartSwitch is off, then the printer does not examine incoming data and uses the default printer language specified in the Setup menu.  |
| <b>PS SmartSwitch</b><br>Off<br>On*   | Set the printer to switch to PS emulation when a print job received through a USB port requires it, regardless of the default printer language.<br><b>Note:</b> If PS SmartSwitch is off, then the printer does not examine incoming data and uses the default printer language specified in the Setup menu.  |
| <b>Mac Binary PS</b><br>On<br>Auto*<br>Off  | Set the printer to process Macintosh binary PostScript print jobs.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• When set to On, the printer processes raw binary PostScript print jobs from computers using the Macintosh operating system.</li> <li>• When set to Auto, the printer processes print jobs from computers using either Windows or Macintosh operating systems</li> <li>• When set to Off, the printer filters PostScript print jobs using the standard protocol.</li> </ul> |
| <b>Enable USB Port</b><br>Disable<br>Enable*  | Enable the standard USB port.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |



## Restrict external network access

| Menu item   | Description  |
|---|--|
| <b>Restrict external network access</b><br>Off*<br>On                               | Restrict access to network sites.                                  |
| <b>External network address</b>   | Specify the network addresses with restricted access.              |
| <b>E-mail address for notification</b>  | Specify an e-mail address to send a notification of logged events. |
| <b>Ping frequency</b><br>1–300 (10*)  | Specify the network query interval in seconds.                     |
| <b>Subject</b>  | Specify the subject and message of the notification e-mail.        |
| <b>Message</b>  |  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Wi-Fi Direct

**Note:** This menu appears only when a direct Wi-Fi network is the active network.

| Menu item   | Description  |
|---|--|
| <b>SSID</b>   | Specify the service set identifier (SSID) of the Wi-Fi network.  |
| <b>Preferred Channel Number</b><br>1–11 (6*)<br>Auto                                | Set the preferred channel of the Wi-Fi network.  |
| <b>Set PSK</b>  | Set the preshared key (PSK) to authenticate and validate users on a Wi-Fi connection.                                    |
| <b>Show PSK on Setup Page</b><br>Off<br>On*   | Show the PSK on the Network Setup Page.  |
| <b>Group Owner IP Address</b>   | Specify the IP address of the group owner.   |
| <b>Auto-Accept Push Button Requests</b><br>Off*<br>On                               | Accept requests to connect to the network automatically.<br><b>Note:</b> Accepting clients automatically is not secured. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

# Security

## Login Methods

### Public

| Menu item   | Description                                       |
|---|---|
| <b>Manage Permissions</b><br>Function Access<br>Held Jobs Access<br>Cancel Jobs at the Device<br>Change Language<br>Internet Printing Protocol (IPP)<br>B/W Print<br>Network Folder - Scan        | Control access to the printer functions.          |
| <b>Manage Permissions</b><br>Administrative Menus<br>Security Menu<br>Network/Ports Menu<br>Paper Menu<br>Reports Menu<br>Function Configuration Menus<br>Supplies Menu<br>SE Menu<br>Device Menu | Control access to the printer menus.              |
| <b>Manage Permissions</b><br>Device Management<br>Remote Management<br>Firmware Updates<br>Import / Export All Settings<br>Out of Service Erase<br>Embedded Web Server Access                     | Control access to the printer management options. |

### Local Accounts

| Menu item   | Description  |
|---|--|
| <b>Add User</b><br>User Name/Password<br>User Name<br>Password<br>PIN | Create local accounts to manage access to the printer functions. |

| Menu item   | Description   |
|---|---|
| <b>Manage Groups/Permissions</b><br>Add Group<br>Import Access Controls<br>Function Access<br>Administrative Menus<br>Device Management<br>All Users<br>Import Access Controls<br>Function Access<br>Administrative Menus<br>Device Management<br>Admin<br>Function Access<br>Administrative Menus<br>Device Management | Control group or user access to the printer functions, applications, and security settings. |

## Certificate Management

| Menu item  | Menu item  |
|--|--|
| <b>Configure Certificate Defaults</b><br>Common Name<br>Organization Name<br>Unit Name<br>Country/Region<br>Province Name<br>City Name<br>Subject Alternate Name | Set the default values for generated certificates.             |
| Device Certificates  | Generate, delete, or view device certificates.                 |
| Manage CA Certificates   | Load, delete, or view Certificate Authority (CA) certificates. |

## Login Restrictions

| Menu item   | Description   |
|---|---|
| <b>Login failures</b><br>1–10 (3*)  | Specify the number of failed login attempts before the user gets locked out.          |
| <b>Failure time frame</b><br>1–60 minutes (5*)                                      | Specify the time frame between failed login attempts before the user gets locked out. |
| <b>Lockout time</b><br>1–60 minutes (5*)  | Specify the lockout duration.   |
| <b>Web Login Timeout</b><br>1–120 minutes (10*)                                     | Specify the delay for a remote login before the user is logged off automatically.     |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |   |

## Confidential Print Setup

| Menu item   | Description  |
|---|--|
| <b>Max Invalid PIN</b><br>2–10 (0*)   | Set the number of times an invalid PIN can be entered.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• A value of zero turns off this setting.</li> <li>• When the limit is reached, the print jobs for that user name and PIN are deleted.</li> </ul>   |
| <b>Confidential Job Expiration</b><br>Off*<br>1 Hour<br>4 Hours<br>24 Hours<br>1 Week | Set the expiration time for confidential print jobs.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• If this menu item is changed while confidential print jobs reside in the printer memory, then the expiration time for those print jobs does not change to the new default value.</li> <li>• If the printer is turned off, then all confidential jobs held in the printer memory are deleted.</li> </ul> |
| <b>Repeat Job Expiration</b><br>Off*<br>1 Hour<br>4 Hours<br>24 Hours<br>1 Week       | Set the expiration time for a print job that you want to repeat.   |
| <b>Verify Job Expiration</b><br>Off*<br>1 Hour<br>4 Hours<br>24 Hours<br>1 Week       | Set the expiration time that the printer prints a copy for the user to examine its quality, before printing the remaining copies.  |
| <b>Reserve Job Expiration</b><br>Off*<br>1 Hour<br>4 Hours<br>24 Hours<br>1 Week      | Set the expiration time that the printer stores print jobs for printing later.   |
| <b>Require All Jobs to be Held</b><br>Off*<br>On                                      | Set the printer to hold all print jobs.  |
| <b>Keep duplicate documents</b><br>Off*<br>On   | Allow the storage of documents with the same file name.  |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting.   |  |

## Erase Temporary Data Files

| Menu item   | Description                                    |
|---|--|
| <b>Stored in onboard memory</b><br>Off*<br>On                                       | Delete all files stored on the printer memory. |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Miscellaneous

| Menu item   | Description  |
|---|--|
| <b>Print Permission</b><br>Off*<br>On   | Allow the user to print.   |
| <b>Security Reset Jumper</b><br>Enable "Guest" access*<br>No Effect                 | Specify user access to the printer.<br><br><b>Notes:</b> <ul style="list-style-type: none"> <li>• The jumper is located beside a lock icon on the controller board.</li> <li>• Enable "Guest" access gives anyone access to all aspects of the printer.</li> <li>• No Effect may make access to the printer impossible when the required security information is unavailable.</li> </ul> |
| <b>Minimum Password Length</b><br>0–32  | Specify the password length.   |
| <b>Note:</b> An asterisk (*) next to a value indicates the factory default setting. |  |

## Reports

### Menu Settings Page

| Menu item                 | Description                                     |
|---------------------------|---|
| <b>Menu Settings Page</b> | Print a report that contains the printer menus. |

### Device

| Menu item                 | Description  |
|---------------------------|--|
| <b>Device Information</b> | Print a report that contains information about the printer.            |
| <b>Device Statistics</b>  | Print a report about printer usage and supply status.                  |
| <b>Profile List</b>       | Print a list of profiles that are stored in the printer.               |
| <b>Asset Report</b>       | Print a report that contains the printer serial number and model name. |

## Print

| Menu item   | Description  |
|---|--|
| <b>Print Fonts</b><br>PCL Fonts<br>PostScript Fonts | Print samples and information about the fonts that are available in each printer language. |

## Network

| Menu item                             | Description  |
|---------------------------------------|--|
| <b>Network Setup Page</b>             | Print a page that shows the configured network and wireless settings on the printer.<br><b>Note:</b> This menu item appears only in network printers or printers connected to print servers. |
| <b>Wi-Fi Direct Connected Clients</b> | Print a page that shows the list of devices that are connected to the printer using Wi-Fi Direct.<br><b>Note:</b> This menu item appears only when Enable Wi-Fi Direct is set to On.         |

## Troubleshooting

| Menu item                       | Description   |
|---------------------------------|---|
| <b>Print Quality Test Pages</b> | Print sample pages to identify and correct print quality defects. |

# Maintain the printer

## Checking the status of parts and supplies

1 From the control panel, navigate to:

**Settings** > **OK** > **Reports** > **OK** > **Device** > **OK** > **Device Statistics** > **OK**

2 From the Supply Information section of the pages printed, check the status of parts and supplies.

## Configuring supply notifications

1 Open a web browser, and then type the printer IP address in the address field.

**Notes:**

- View the printer IP address on the printer home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

2 Click **Settings** > **Device** > **Notifications**.

3 From the Supplies menu, click **Custom Supply Notifications**.

4 Select a notification for each supply item.

5 Apply the changes.

## Setting up e-mail alerts

Configure the printer to send e-mail alerts when supplies are low, when paper must be changed or added, or when there is a paper jam.

1 Open a web browser, and then type the printer IP address in the address field.

**Notes:**

- View the printer IP address on the printer home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.
- If you are using a proxy server, then temporarily disable it to load the web page correctly.

2 Click **Settings** > **Device** > **Notifications** > **E-mail Alert Setup**, and then configure the settings.

**Note:** For more information on SMTP settings, contact your e-mail provider.

3 Click **Setup E-mail Lists and Alerts**, and then configure the settings.

4 Apply the changes.

## Viewing reports

1 From the control panel, navigate to:

**Settings** > **OK** > **Reports** > **OK**

2 Select the report that you want to view, and then press **OK**.

## Ordering parts and supplies

To order supplies, contact the place where you purchased the printer.

**Note:** All life estimates for printer supplies assume printing on letter- or A4-size plain paper.

**Warning—Potential Damage:** Failure to maintain optimum printer performance, or to replace parts and supplies, may cause damage to your printer.

### Ordering a toner cartridge

**Notes:**

- The estimated cartridge yield is based on the ISO/IEC 19752 standard.
- Extremely low print coverage for extended periods of time may negatively affect actual yield.

To order a toner cartridge, contact the place where you purchased the printer.

### Ordering an imaging unit

To order an imaging unit, contact the place where you purchased the printer.

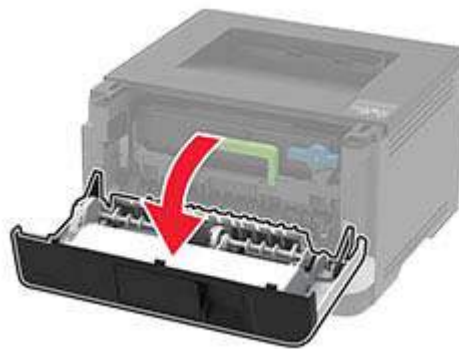
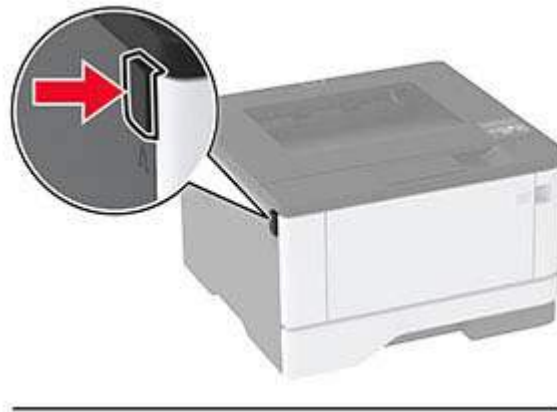
## Replacing parts and supplies

### Replacing the toner cartridge

1 Open the front door.

**Warning—Potential Damage:** To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.





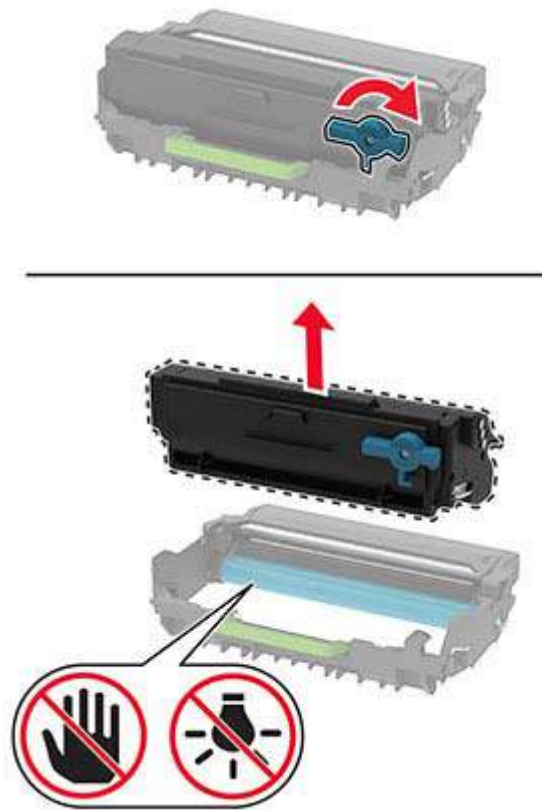
**2** Remove the imaging unit.



**3** Twist the blue latch, and then remove the used toner cartridge from the imaging unit.

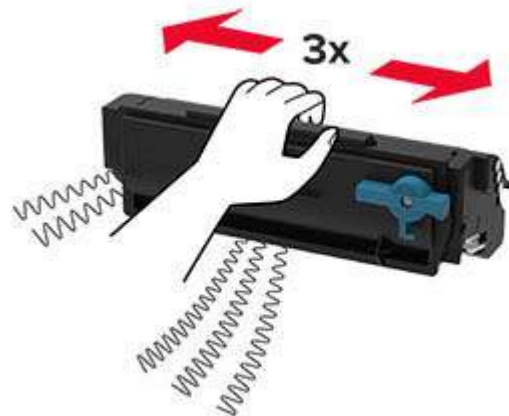
**Warning—Potential Damage:** Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

**Warning—Potential Damage:** Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.

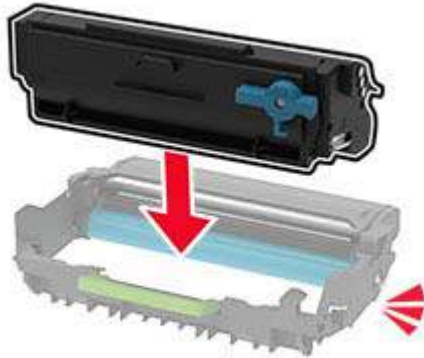


**4** Unpack the new toner cartridge.

**5** Shake the toner cartridge to redistribute the toner.



- 6 Insert the new toner cartridge into the imaging unit until it *clicks* into place.



- 7 Insert the imaging unit.



- 8 Close the door.

## Replacing the imaging unit

- 1 Open the front door.

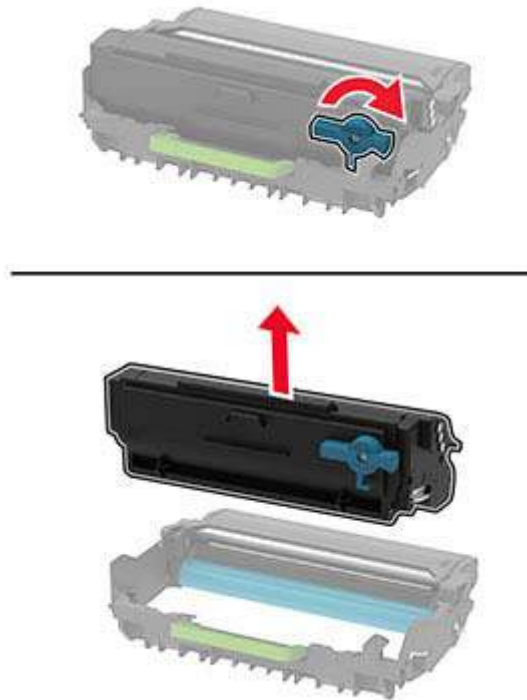
**Warning—Potential Damage:** To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



**2** Remove the used imaging unit.



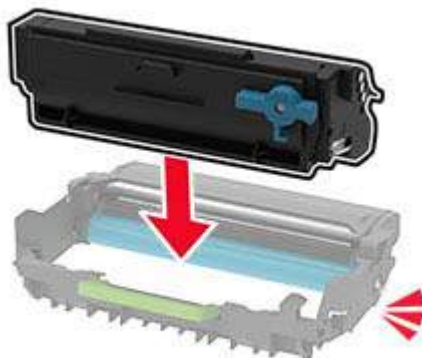
- 3 Twist the blue latch, and then remove the toner cartridge from the used imaging unit.



- 4 Unpack the new imaging unit, and then insert the toner cartridge until it *clicks* into place.

**Warning—Potential Damage:** Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

**Warning—Potential Damage:** Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



- 5 Insert the new imaging unit.



- 6 Close the door.

## Replacing the tray

- 1 Remove the used tray.



- 2 Unpack the new tray.

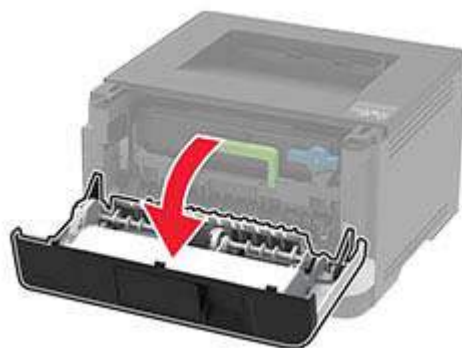
- 3 Insert the new tray.



## Replacing the pick roller assembly

- 1 Turn off the printer.
- 2 Unplug the power cord from the electrical outlet, and then from the printer.

**3** Open the front door.



**4** Remove the imaging unit.

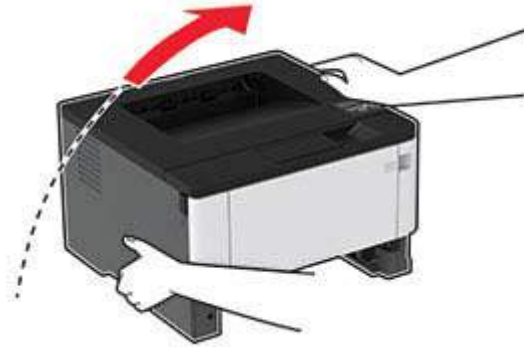


**5** Close the front door.

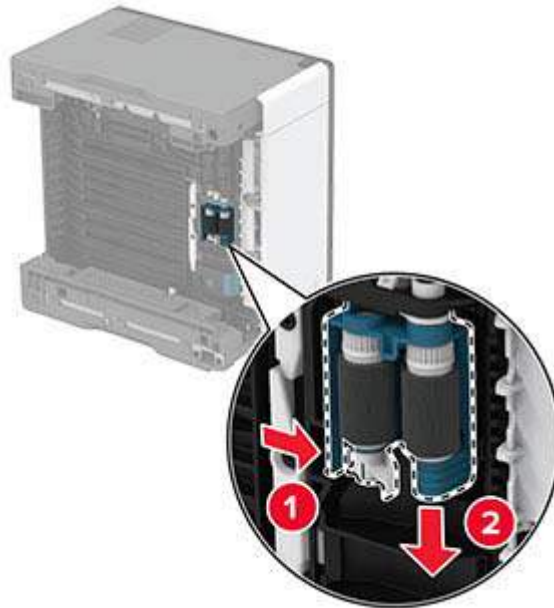
**6** Remove the tray.



7 Position the printer on its side.



8 Remove the used pick roller assembly.

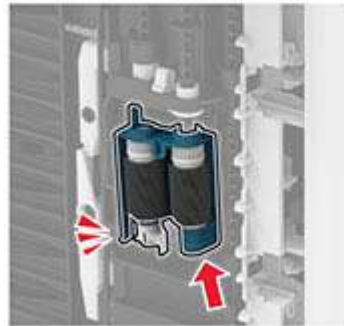
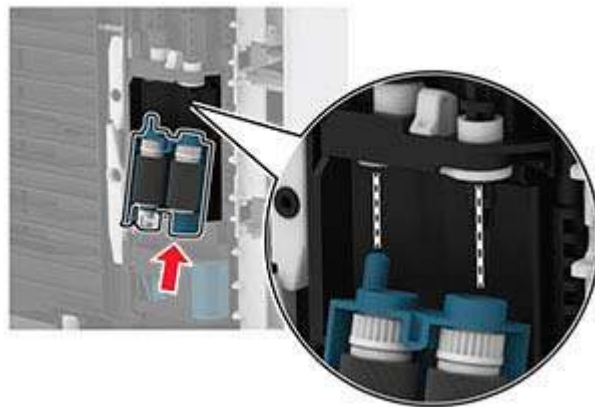


9 Unpack the new pick roller assembly.

**Note:** To avoid contamination, make sure that your hands are clean.



- 10** Insert the new pick roller assembly.



- 11** Place the printer in its original position, and then insert the tray.
- 12** Open the front door.
- 13** Insert the imaging unit.
- 14** Close the front door.
- 15** Connect the power cord to the printer, and then to the electrical outlet.
- ⚠ CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.
- 16** Turn on the printer.

## Replacing the tray separator roller

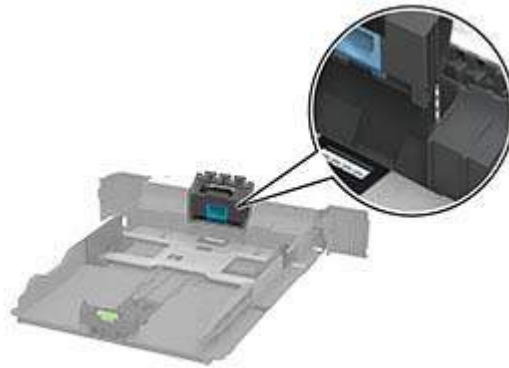
- 1 Remove the tray, and then remove the used separator roller.



- 2 Unpack the new separator roller.

**Note:** To avoid contamination, make sure that your hands are clean.

- 3 Insert the new separator roller.



- 4 Insert the tray.



## Resetting the supply usage counters


1 From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Maintenance** > **OK** > **Config Menu** > **OK** > **Supply Usage And Counters**  
> **OK**

2 Select the counter that you want to reset.

**Warning—Potential Damage:** Supplies and parts without Return Program agreement terms may be reset and remanufactured. However, the manufacturer's warranty does not cover any damage caused by non-genuine supplies or parts. Resetting counters on the supply or part without proper remanufacturing can cause damage to your printer. After resetting the supply or part counter, your printer may display an error indicating the presence of the reset item.

## Cleaning the printer

 **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

### Notes:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1 Turn off the printer, and then unplug the power cord from the electrical outlet.

2 Remove paper from the standard bin and multipurpose feeder.


3 Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.

4 Wipe the outside of the printer with a damp, soft, lint-free cloth.

### Notes:

- Do not use household cleaners or detergents, as they may damage the finish of the printer.
- Make sure that all areas of the printer are dry after cleaning.

5 Connect the power cord to the electrical outlet, and then turn on the printer.

 **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

# Saving energy and paper

## Configuring the power save mode settings

### Sleep mode

1 From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Power Management** > **OK** > **Timeouts** > **OK** > **Sleep Mode** > **OK**

2 Enter the amount of time that the printer stays idle before it enters Sleep mode.

### Hibernate mode

1 From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Power Management** > **OK** > **Timeouts** > **OK** > **Hibernate Timeout** > **OK**

2 Select the amount of time before the printer enters Hibernate mode.

### Notes:

- Make sure to wake the printer from Hibernate mode before sending a print job.
- To wake the printer from Hibernate mode, press the power button.
- The Embedded Web Server is disabled when the printer is in Hibernate mode.


## Conserving supplies


- Print on both sides of the paper.


**Note:** Two-sided printing is the default setting in the print driver.

- Print multiple pages on a single sheet of paper.
- Use the preview feature to see how the document looks like before printing it.
- Print one copy of the document to check its content and format for accuracy.

## Moving the printer to another location

 **CAUTION—POTENTIAL INJURY:** If the printer weight is greater than 20 kg (44 lb), then it may require two or more people to lift it safely.

 **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.

 **CAUTION—POTENTIAL INJURY:** When moving the printer, follow these guidelines to avoid personal injury or printer damage:

- Make sure that all doors and trays are closed.
- Turn off the printer, and then unplug the power cord from the electrical outlet.
- Disconnect all cords and cables from the printer.

- If the printer has separate floor-standing optional trays or output options attached to it, then disconnect them before moving the printer.
- If the printer has a caster base, then carefully roll it to the new location. Use caution when passing over thresholds and breaks in flooring.
- If the printer does not have a caster base but is configured with optional trays or output options, then remove the output options and lift the printer off the trays. Do not try to lift the printer and any options at the same time.
- Always use the handholds on the printer to lift it.
- Any cart used to move the printer must have a surface able to support the full footprint of the printer.
- Any cart used to move the hardware options must have a surface able to support the dimensions of the options.
- Keep the printer in an upright position.
- Avoid severe jarring movements.
- Make sure that your fingers are not under the printer when you set it down.
- Make sure that there is adequate clearance around the printer.


**Note:** Damage to the printer caused by improper moving is not covered by the printer warranty.

## Shipping the printer

When shipping the printer, use the original packaging or contact the place where you purchased the printer.

# Troubleshoot a problem

## The printer is not responding

| Action  | Yes   | No                                      |
|---|---|---|
| <p><b>Step 1</b><br/>Check if the power cord is connected to the electrical outlet.</p> <p> <b>CAUTION—POTENTIAL INJURY:</b> To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.</p> <p>Is the printer responding?</p> | The problem is solved.                      | Go to step 2.                           |
| <p><b>Step 2</b><br/>Check if the electrical outlet is turned off by a switch or breaker.</p> <p>Is the electrical outlet turned off by a switch or breaker?</p>  | Turn on the switch or reset the breaker.    | Go to step 3.                           |
| <p><b>Step 3</b><br/>Check if the printer is on.</p> <p>Is the printer on?</p>  | Go to step 4.                               | Turn on the printer.                    |
| <p><b>Step 4</b><br/>Check if the printer is in Sleep or Hibernate mode.</p> <p>Is the printer in Sleep or Hibernate mode?</p>  | Press the power button to wake the printer. | Go to step 5.                           |
| <p><b>Step 5</b><br/>Check if the cables connecting the printer and the computer are inserted to the correct ports.</p> <p>Are the cables inserted to the correct ports?</p>  | Go to step 6.                               | Insert the cables to the correct ports. |
| <p><b>Step 6</b><br/>Turn off the printer, install the hardware options, and then turn on the printer.<br/>For more information, see the documentation that came with the option.</p> <p>Is the printer responding?</p>   | The problem is solved.                      | Go to step 7.                           |
| <p><b>Step 7</b><br/>Install the correct print driver.</p> <p>Is the printer responding?</p>  | The problem is solved.                      | Go to step 8.                           |

| Action  | Yes                           | No   |
|---|-------------------------------|--|
| <p><b>Step 8</b><br/>Turn off the printer, wait for about 10 seconds, and then turn on the printer.</p> <p>Is the printer responding?</p> | <p>The problem is solved.</p> | <p>Contact <a href="#">customer support</a>.</p> |

## Network connection problems

### Cannot open Embedded Web Server

| Action   | Yes                  | No   |
|--|----------------------|--|
| <p><b>Step 1</b><br/>Check if the printer is on.</p> <p>Is the printer on?</p>   | <p>Go to step 2.</p> | <p>Turn on the printer.</p>                                      |
| <p><b>Step 2</b><br/>Make sure that the printer IP address is correct.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• View the IP address on the home screen.</li> <li>• An IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.</li> </ul> <p>Is the printer IP address correct?</p>                | <p>Go to step 3.</p> | <p>Type the correct printer IP address in the address field.</p> |
| <p><b>Step 3</b><br/>Check if you are using a supported browser:</p> <ul style="list-style-type: none"> <li>• Internet Explorer version 11 or later</li> <li>• Microsoft Edge</li> <li>• Safari version 6 or later</li> <li>• Google Chrome™ version 32 or later</li> <li>• Mozilla Firefox version 24 or later</li> </ul> <p>Is your browser supported?</p> | <p>Go to step 4.</p> | <p>Install a supported browser.</p>                              |
| <p><b>Step 4</b><br/>Check if the network connection is working.</p> <p>Is the network connection working?</p>   | <p>Go to step 5.</p> | <p>Contact your administrator.</p>                               |

| Action   | Yes                    | No   |
|--|------------------------|--|
| <p><b>Step 5</b><br/>Make sure that the cable connections to the printer and print server are secure. For more information, see the documentation that came with the printer.</p> <p>Are the cable connections secure?</p> | Go to step 6.          | Secure the cable connections.              |
| <p><b>Step 6</b><br/>Check if the web proxy servers are disabled.</p> <p>Are the web proxy servers disabled?</p>   | Go to step 7.          | Contact your administrator.                |
| <p><b>Step 7</b><br/>Access the Embedded Web Server.</p> <p>Did the Embedded Web Server open?</p>  | The problem is solved. | Contact <a href="#">customer support</a> . |

## Cannot connect the printer to the Wi-Fi network

**Note:** This feature is available only in some printer models.

| Action  | Yes                    | No            |
|---|------------------------|---------------|
| <p><b>Step 1</b><br/>Make sure that Active Adapter is set to Auto.<br/>From the control panel, navigate to:<br/><b>Settings &gt; Network/Ports &gt; Network Overview &gt; Active Adapter &gt; Auto</b></p> <p>For non-touch-screen printer models, press <b>OK</b> to navigate through the settings.</p> <p>Can the printer connect to the Wi-Fi network?</p> | The problem is solved. | Go to step 2. |
| <p><b>Step 2</b><br/>Check if the correct Wi-Fi network is selected.<br/><b>Note:</b> Some routers may share the default SSID.</p> <p>Are you connecting to the correct Wi-Fi network?</p>  | Go to step 4.          | Go to step 3. |
| <p><b>Step 3</b><br/>Connect to the correct Wi-Fi network. For more information, see <a href="#">“Connecting the printer to a Wi-Fi network” on page 21</a>.</p> <p>Can the printer connect to the Wi-Fi network?</p>   | The problem is solved. | Go to step 4. |



| Action   | Yes                    | No   |
|--|------------------------|--|
| <p><b>Step 4</b><br/>                     Check the wireless security mode.<br/>                     From the control panel, navigate to:<br/> <b>Settings &gt; Network/Ports &gt; Wireless &gt; Wireless Security Mode</b></p> <p>For non-touch-screen printer models, press <b>OK</b> to navigate through the settings.</p> <p>Is the correct wireless security mode selected?</p> | Go to step 6.          | Go to step 5.                              |
| <p><b>Step 5</b><br/>                     Select the correct wireless security mode.</p> <p>Can the printer connect to the Wi-Fi network?</p>  | The problem is solved. | Go to step 6.                              |
| <p><b>Step 6</b><br/>                     Make sure that you entered the correct network password.<br/> <b>Note:</b> Take note of the spaces, numbers, and capitalization in the password.</p> <p>Can the printer connect to the Wi-Fi network?</p>  | The problem is solved. | Contact <a href="#">customer support</a> . |

## Issues with supplies

### Replace cartridge, printer region mismatch

Install the correct toner cartridge.

### Non-Printer Manufacturer supply

The printer has detected an unrecognized supply or part installed in the printer.

Your printer is designed to function best with genuine supplies and parts made by the printer manufacturer. Use of third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components.

All life indicators are designed to function with supplies and parts from the printer manufacturer and may deliver unpredictable results if third-party supplies or parts are used. Imaging component usage beyond the intended life may damage your printer or associated components.

**Warning—Potential Damage:** Use of third-party supplies or parts can affect warranty coverage. Damage caused by the use of third-party supplies or parts may not be covered by the warranty.

To accept any and all of these risks and to proceed with the use of non-genuine supplies or parts in your printer, press and hold **X** and **OK** simultaneously for 15 seconds.

If you do not want to accept these risks, then remove the third-party supply or part from your printer and install a genuine supply or part from the printer manufacturer.

1 From the control panel, navigate to:

**Settings** > **OK** > **Device** > **OK** > **Maintenance** > **OK** > **Config Menu** > **OK** > **Supply Usage And Counters** > **OK**

2 Select the part or supply that you want to reset, and then select **OK**.

3 Read the warning message, and then select **Continue** > **OK**.

4 To clear the message, press and hold **X** and **OK** simultaneously for 15 seconds.

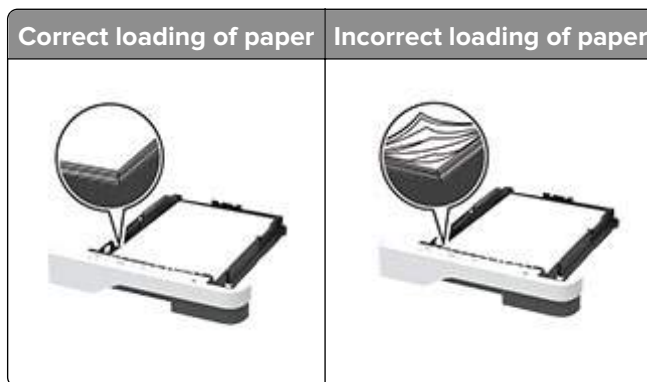
**Note:** If you are unable to reset the supply usage counters, then return the item to the place of purchase.

## Clearing jams

### Avoiding jams

#### Load paper properly

- Make sure that the paper lies flat in the tray.



- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.

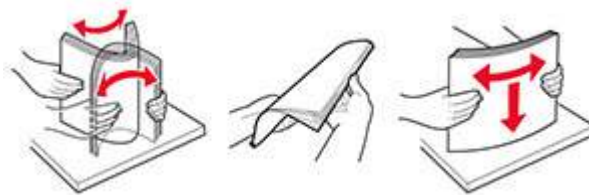
- Do not slide paper into the tray. Load paper as shown in the illustration.



- Make sure that the paper guides are positioned correctly and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.

### Use recommended paper

- Use only recommended paper or specialty media.
- Do not load paper that is wrinkled, creased, damp, bent, or curled.
- Flex, fan, and align the paper edges before loading.



- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

## Identifying jam locations

### Notes:

- When Jam Assist is set to On, the printer flushes blank pages or pages with partial prints after a jammed page has been cleared. Check your printed output for blank pages.
- When Jam Recovery is set to On or Auto, the printer reprints jammed pages.



| Jam locations |                     |
|---------------|---------------------|
| 1             | Standard bin        |
| 2             | Multipurpose feeder |
| 3             | Trays               |
| 4             | Duplex unit         |
| 5             | Rear door           |

### Paper jam in the standard bin

Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.



## Paper jam in the multipurpose feeder

- 1 Remove paper from the multipurpose feeder.



- 2 Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.

- 3 Close the multipurpose feeder.

- 4 Open the front door.

**Warning—Potential Damage:** To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



**5** Remove the imaging unit.




**Warning—Potential Damage:** Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

**Warning—Potential Damage:** Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



**6** Remove the jammed paper.

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

**Note:** Make sure that all paper fragments are removed.

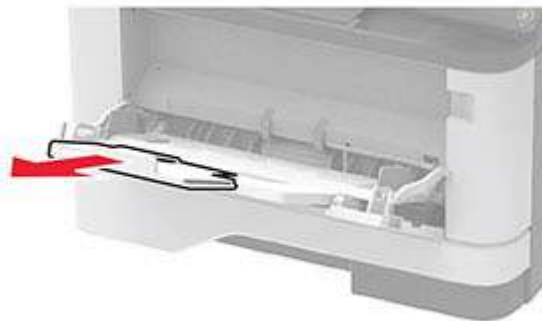


**7** Insert the imaging unit.

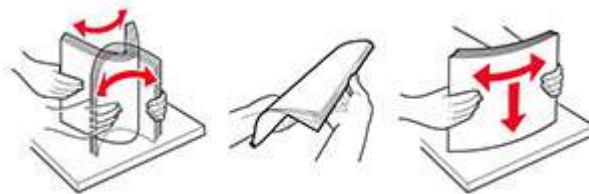


**8** Close the door.

**9** Open the multipurpose feeder.



**10** Flex, fan, and align the paper edges before loading.



- 11 Reload paper.



## Paper jam in trays

- 1 Remove the tray.



- 2 Open the front door.

**Warning—Potential Damage:** To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.





**3** Remove the imaging unit.



**Warning—Potential Damage:** Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

**Warning—Potential Damage:** Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



4 Remove the jammed paper.

**CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

**Note:** Make sure that all paper fragments are removed.



5 Insert the imaging unit.



6 Close the front door, and then insert the tray.

7 Open the rear door.

**CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



8 Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.



**9** Close the rear door.

**10** Remove the optional tray.



**11** Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.



**12** Insert the tray.

## Paper jam in the duplex unit

**1** Open the front door.

**Warning—Potential Damage:** To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



**2** Remove the imaging unit.



**Warning—Potential Damage:** Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

**Warning—Potential Damage:** Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



**3** Remove the jammed paper.

**CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

**Note:** Make sure that all paper fragments are removed.



**4** Insert the imaging unit.

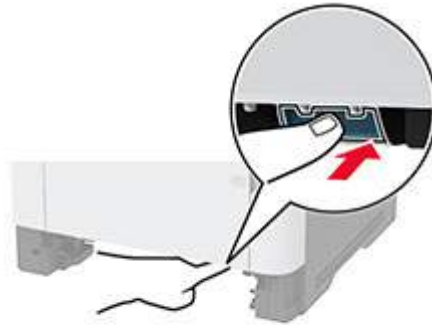


**5** Close the door.

**6** Remove the tray.



- 7 Push the duplex unit latch to open the duplex unit.



- 8 Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.



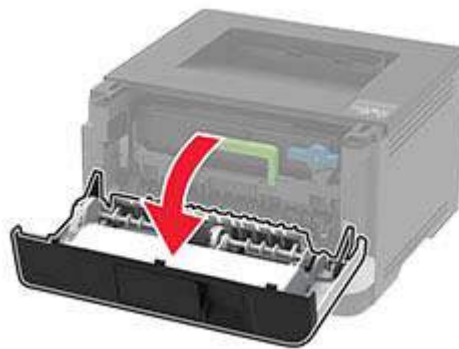
- 9 Close the duplex unit.

- 10 Insert the tray.

## Paper jam in the rear door

- 1 Open the front door.

**Warning—Potential Damage:** To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.



2 Remove the imaging unit.




**Warning—Potential Damage:** Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

**Warning—Potential Damage:** Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.



**3** Open the rear door.

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



**4** Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.



**5** Close the rear door.

**6** Insert the imaging unit.



**7** Close the front door.



# Paper feed problems

## Envelope seals when printing

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Use an envelope that has been stored in a dry environment.</p> <p><b>Note:</b> Printing on envelopes with high moisture content can seal the flaps.</p> <p><b>b</b> Send the print job.</p> <p>Does the envelope seal when printing?</p>   | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Make sure that paper type is set to Envelope.</p> <p>From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Paper</b> &gt; <b>OK</b> &gt; <b>Tray Configuration</b> &gt; <b>OK</b> &gt; <b>Paper Size/Type</b> &gt; <b>OK</b></p> <p><b>b</b> Send the print job.</p> <p>Does the envelope seal when printing?</p> | Contact <a href="#">customer support</a> . | The problem is solved. |

## Collated printing does not work

| Action   | Yes                    | No            |
|--|------------------------|---------------|
| <p><b>Step 1</b></p> <p><b>a</b> From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Print</b> &gt; <b>OK</b> &gt; <b>Layout</b> &gt; <b>OK</b> &gt; <b>Collate</b> &gt; <b>OK</b></p> <p><b>b</b> Set Collate to <b>On [1,2,1,2,1,2]</b>, and then press <b>OK</b>.</p> <p><b>c</b> Print the document.</p> <p>Is the document collated correctly?</p> | The problem is solved. | Go to step 2. |
| <p><b>Step 2</b></p> <p><b>a</b> From the document that you are trying to print, open the Print dialog, and then select <b>Collate</b>.</p> <p><b>b</b> Print the document.</p> <p>Is the document collated correctly?</p>   | The problem is solved. | Go to step 3. |

| Action   | Yes                    | No   |
|--|------------------------|--|
| <p><b>Step 3</b></p> <p><b>a</b> Reduce the number of pages to print.</p> <p><b>b</b> Print the document.</p> <p>Are the pages collated correctly?</p> | The problem is solved. | Contact <a href="#">customer support</a> . |

### Tray linking does not work

| Action   | Yes                    | No   |
|--|------------------------|--|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the trays contain the same paper size and paper type.</p> <p><b>b</b> Check if the paper guides are positioned correctly.</p> <p><b>c</b> Print the document.</p> <p>Do the trays link correctly?</p>  | The problem is solved. | Go to step 2.                              |
| <p><b>Step 2</b></p> <p><b>a</b> From the control panel, navigate to:</p> <p style="padding-left: 20px;"><b>Settings</b> &gt; <b>OK</b> &gt; <b>Paper</b> &gt; <b>OK</b> &gt; <b>Tray Configuration</b> &gt; <b>OK</b><br/>&gt; <b>Paper Size/Type</b> &gt; <b>OK</b></p> <p><b>b</b> Set the paper size and paper type to match the paper loaded in the linked trays.</p> <p><b>c</b> Print the document.</p> <p>Do the trays link correctly?</p> | The problem is solved. | Go to step 3.                              |
| <p><b>Step 3</b></p> <p><b>a</b> Make sure that Tray Linking is set to Automatic. For more information, see <a href="#">“Linking trays” on page 19</a>.</p> <p><b>b</b> Print the document.</p> <p>Do the trays link correctly?</p>  | The problem is solved. | Contact <a href="#">customer support</a> . |

## Paper frequently jams

| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Remove the tray.</p> <p><b>b</b> Check if paper is loaded correctly.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the paper guides are positioned correctly.</li> <li>• Make sure that the stack height is below the maximum paper fill indicator.</li> <li>• Make sure to print on recommended paper size and type.</li> </ul> <p><b>c</b> Insert the tray.</p> <p><b>d</b> Print the document.</p> <p>Do paper jams occur frequently?</p> | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Paper</b> &gt; <b>OK</b> &gt; <b>Tray Configuration</b> &gt; <b>OK</b> &gt; <b>Paper Size/Type</b> &gt; <b>OK</b></p> <p><b>b</b> Set the correct paper size and type.</p> <p><b>c</b> Print the document.</p> <p>Do paper jams occur frequently?</p>  | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you are ready to use it.</p> <p><b>b</b> Print the document.</p> <p>Do paper jams occur frequently?</p>   | Contact <a href="#">customer support</a> . | The problem is solved. |

## Jammed pages are not reprinted

| Action  | Yes                    | No   |
|---|------------------------|--|
| <p><b>1</b> From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Device</b> &gt; <b>OK</b> &gt; <b>Notifications</b> &gt; <b>OK</b> &gt; <b>Jam Content Recovery</b> &gt; <b>OK</b></p> <p><b>2</b> In the Jam Recovery menu, select <b>On</b> or <b>Auto</b>, and then press <b>OK</b>.</p> <p>Are the jammed pages reprinted?</p> | The problem is solved. | Contact <a href="#">customer support</a> . |

# Printing problems

## Print jobs do not print

| Action  | Yes                    | No   |
|---|------------------------|--|
| <p><b>Step 1</b></p> <p><b>a</b> From the document you are trying to print, open the Print dialog, and then check if you have selected the correct printer.</p> <p><b>b</b> Print the document.</p> <p>Is the document printed?</p>   | The problem is solved. | Go to step 2.                              |
| <p><b>Step 2</b></p> <p><b>a</b> Check if the printer is on.</p> <p><b>b</b> Resolve any error messages that appear on the display.</p> <p><b>c</b> Print the document.</p> <p>Is the document printed?</p>   | The problem is solved. | Go to step 3.                              |
| <p><b>Step 3</b></p> <p><b>a</b> Check if the ports are working and if the cables are securely connected to the computer and the printer.<br/>For more information, see the setup documentation that came with the printer.</p> <p><b>b</b> Print the document.</p> <p>Is the document printed?</p> | The problem is solved. | Go to step 4.                              |
| <p><b>Step 4</b></p> <p><b>a</b> Turn off the printer, wait for about 10 seconds, and then turn on the printer.</p> <p><b>b</b> Print the document.</p> <p>Is the document printed?</p>   | The problem is solved. | Go to step 5.                              |
| <p><b>Step 5</b></p> <p><b>a</b> Remove, and then reinstall the print driver.</p> <p><b>b</b> Print the document.</p> <p>Is the document printed?</p>   | The problem is solved. | Contact <a href="#">customer support</a> . |

## Confidential and other held documents do not print

| Action   | Yes                           | No   |
|--|-------------------------------|--|
| <p><b>Step 1</b></p> <p><b>a</b> From the control panel, check if the documents appear in the Held Jobs list.</p> <p><b>Note:</b> If the documents are not listed, then print the documents using the Print and Hold options.</p> <p><b>b</b> Print the documents.</p> <p>Are the documents printed?</p>   | <p>The problem is solved.</p> | <p>Go to step 2.</p>                             |
| <p><b>Step 2</b></p> <p>The print job may contain a formatting error or invalid data. Delete the print job, and then send it again.</p> <p>Are the documents printed?</p>  | <p>The problem is solved.</p> | <p>Go to step 3.</p>                             |
| <p><b>Step 3</b></p> <p>If you are printing from the Internet, then the printer may be reading the multiple job titles as duplicates.</p> <p><b>For Windows users</b></p> <p><b>a</b> Open the Printing Preferences dialog.</p> <p><b>b</b> From the Print and Hold tab, click <b>Use Print and Hold</b>, and then click <b>Keep duplicate documents</b>.</p> <p><b>c</b> Enter a PIN, and then save the changes.</p> <p><b>d</b> Send the print job.</p> <p><b>For Macintosh users</b></p> <p><b>a</b> Save and name each job differently.</p> <p><b>b</b> Send the job individually.</p> <p>Are the documents printed?</p> | <p>The problem is solved.</p> | <p>Go to step 4.</p>                             |
| <p><b>Step 4</b></p> <p><b>a</b> Delete some held jobs to free up printer memory.</p> <p><b>b</b> Print the documents.</p> <p>Are the documents printed?</p>   | <p>The problem is solved.</p> | <p>Contact <a href="#">customer support</a>.</p> |

## Job prints from the wrong tray or on the wrong paper

| Action  | Yes                  | No   |
|---|----------------------|--|
| <p><b>Step 1</b></p> <p><b>a</b> Check if you are printing on the correct paper.</p> <p><b>b</b> Print the document.</p> <p>Is the document printed on the correct paper?</p> | <p>Go to step 2.</p> | <p>Load the correct paper size and paper type.</p> |

| Action   | Yes                           | No   |
|--|-------------------------------|--|
| <p><b>Step 2</b></p> <p><b>a</b> Depending on your operating system, specify the paper size and paper type from the Printing Preferences or Print dialog.</p> <p><b>Note:</b> You can also change the settings on the printer control panel. Navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Paper</b> &gt; <b>OK</b> &gt; <b>Tray Configuration</b> &gt; <b>OK</b> &gt; <b>Paper Size/Type</b> &gt; <b>OK</b></p> <p><b>b</b> Make sure that the settings match the paper loaded.</p> <p><b>c</b> Print the document.</p> <p>Is the document printed on the correct paper?</p> | <p>The problem is solved.</p> | <p>Go to step 3.</p>                             |
| <p><b>Step 3</b></p> <p><b>a</b> Check if the trays are linked.</p> <p>For more information, see <a href="#">“Linking trays” on page 19</a>.</p> <p><b>b</b> Print the document.</p> <p>Is the document printed from the correct tray?</p>   | <p>The problem is solved.</p> | <p>Contact <a href="#">customer support</a>.</p> |

## Slow printing

| Action  | Yes                  | No                            |
|---|----------------------|-------------------------------|
| <p><b>Step 1</b></p> <p>Make sure that the printer cable is securely connected to the printer and to the computer, print server, option, or other network device.</p> <p>Is the printer printing slow?</p>  | <p>Go to step 2.</p> | <p>The problem is solved.</p> |
| <p><b>Step 2</b></p> <p><b>a</b> Make sure that the printer is not in Quiet Mode.</p> <p>From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Device</b> &gt; <b>OK</b> &gt; <b>Maintenance</b> &gt; <b>OK</b> &gt; <b>Config Menu</b> &gt; <b>OK</b> &gt; <b>Device Operations</b> &gt; <b>OK</b> &gt; <b>Quiet Mode</b> &gt; <b>OK</b></p> <p><b>b</b> Print the document.</p> <p>Is the printer printing slow?</p> | <p>Go to step 3.</p> | <p>The problem is solved.</p> |

| Action  | Yes                  | No                            |
|---|----------------------|-------------------------------|
| <p><b>Step 3</b></p> <p><b>a</b> Depending on your operating system, specify the print resolution from the Printing Preferences or Print dialog.</p> <p><b>b</b> Set the resolution to <b>600 dpi</b>.</p> <p><b>c</b> Print the document.</p> <p>Is the printer printing slow?</p>   | <p>Go to step 4.</p> | <p>The problem is solved.</p> |
| <p><b>Step 4</b></p> <p><b>a</b> From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Print</b> &gt; <b>OK</b> &gt; <b>Quality</b> &gt; <b>OK</b> &gt; <b>Print Resolution</b> &gt; <b>OK</b></p> <p><b>b</b> Set the resolution to <b>600 dpi</b>.</p> <p><b>c</b> Print the document.</p> <p>Is the printer printing slow?</p>  | <p>Go to step 5.</p> | <p>The problem is solved.</p> |
| <p><b>Step 5</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• Heavier paper prints more slowly.</li> <li>• Paper narrower than letter, A4, and legal may print more slowly.</li> </ul> <p><b>b</b> Print the document.</p> <p>Is the printer printing slow?</p>                          | <p>Go to step 6.</p> | <p>The problem is solved.</p> |
| <p><b>Step 6</b></p> <p><b>a</b> Make sure that the printer settings for texture and weight match the paper being loaded.</p> <p>From the control panel, navigate to:</p> <p><b>Settings</b> &gt; <b>OK</b> &gt; <b>Paper</b> &gt; <b>OK</b> &gt; <b>Media Configuration</b> &gt; <b>OK</b> &gt; <b>Media Types</b> &gt; <b>OK</b></p> <p><b>Note:</b> Rough paper textures and heavy paper weights may print more slowly.</p> <p><b>b</b> Print the document.</p> <p>Is the printer printing slow?</p> | <p>Go to step 7.</p> | <p>The problem is solved.</p> |
| <p><b>Step 7</b></p> <p>Remove held jobs.</p> <p>Is the printer printing slow?</p>  | <p>Go to step 8.</p> | <p>The problem is solved.</p> |

| Action  | Yes  | No                            |
|---|--|-------------------------------|
| <p><b>Step 8</b></p> <p><b>a</b> Make sure that the printer is not overheating.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Allow the printer to cool down after a long print job.</li> <li>• Observe the recommended ambient temperature for the printer. For more information, see <a href="#">“Selecting a location for the printer” on page 14.</a></li> </ul> <p><b>b</b> Print the document.</p> <p>Is the printer printing slow?</p> | <p>Contact <a href="#">customer support</a>.</p> | <p>The problem is solved.</p> |

## Print quality problems

### Print quality is poor

Find the image that resembles the print quality problem you are having, and then click the link below it to read problem-solving steps.



[“Blank or white pages” on page 105](#)



[“Dark print” on page 106](#)



[“Fine lines are not printed correctly” on page 108](#)



[“Folded or wrinkled paper” on page 109](#)



[“Gray background” on page 110](#)



[“Horizontal light bands” on page 120](#)



[“Incorrect margins” on page 112](#)



[“Light print” on page 112](#)





[“Mottled print and dots” on page 114](#)



[“Paper curl” on page 115](#)



[“Print crooked or skewed” on page 117](#)



[“Repeating defects” on page 126](#)



[“Solid black pages” on page 117](#)



[“Text or images cut off” on page 118](#)



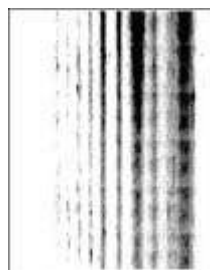
[“Toner easily rubs off” on page 119](#)



[“Vertical dark bands” on page 123](#)



[“Vertical dark lines or streaks” on page 124](#)



[“Vertical dark streaks with print missing” on page 125](#)



[“Vertical light bands” on page 121](#)



[“Vertical white lines” on page 122](#)

### Blank or white pages



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the printer printing blank or white pages?</p>   | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Remove the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Check the imaging unit for signs of damage.</p> <p><b>Note:</b> Make sure that the photoconductor drum contact is not bent or out of place.</p> <p><b>c</b> Firmly shake the imaging unit to redistribute the toner.</p> <p><b>d</b> Insert the imaging unit.</p> <p><b>e</b> Print the document.</p> <p>Is the printer printing blank or white pages?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p>Replace the toner cartridge.</p> <p>Is the printer printing blank or white pages?</p>   | Go to step 4.                              | The problem is solved. |
| <p><b>Step 4</b></p> <p>Replace the imaging unit.</p> <p>Is the printer printing blank or white pages?</p>  | Contact <a href="#">customer support</a> . | The problem is solved. |

**Dark print**



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes           | No                     |
|--|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the print dark?</p>   | Go to step 2. | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Turn off the printer, wait for about 10 seconds, and then turn on the printer.</p> <p><b>b</b> Reduce toner darkness.</p> <p>From the control panel, navigate to:<br/><b>Settings &gt; Print &gt; Quality &gt; Toner Darkness</b></p> <p><b>c</b> Print the document.</p> <p>Is the print dark?</p>   | Go to step 3. | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• You can also change the setting on the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type</b>.</li> </ul> <p><b>b</b> Print the document.</p> <p>Is the print dark?</p> | Go to step 4. | The problem is solved. |
| <p><b>Step 4</b></p> <p>Check if the paper has texture or rough finishes.</p> <p>Are you printing on textured or rough paper?</p>  | Go to step 5. | Go to step 6.          |
| <p><b>Step 5</b></p> <p><b>a</b> Replace textured paper with plain paper.</p> <p><b>b</b> Print the document.</p> <p>Is the print dark?</p>  | Go to step 6. | The problem is solved. |

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 6</b></p> <p><b>a</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you are ready to use it.</p> <p><b>b</b> Print the document.</p> <p>Is the print dark?</p>   | Go to step 7.                              | The problem is solved. |
| <p><b>Step 7</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Is the print dark?</p> | Go to step 8.                              | The problem is solved. |
| <p><b>Step 8</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Is the print dark?</p>  | Contact <a href="#">customer support</a> . | The problem is solved. |

### Fine lines are not printed correctly



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Are fine lines not printed correctly?</p> | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Increase toner darkness.</p> <p>From the control panel, navigate to:<br/><b>Settings &gt; Print &gt; Quality &gt; Toner Darkness</b></p> <p><b>b</b> Print the document.</p> <p>Are fine lines not printed correctly?</p>                        | Contact <a href="#">customer support</a> . | The problem is solved. |

### Folded or wrinkled paper



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes           | No                     |
|--|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the paper folded or wrinkled?</p> | Go to step 2. | The problem is solved. |

| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you are ready to use it.</p> <p><b>b</b> Print the document.</p> <p>Is the paper folded or wrinkled?</p>  | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• You can also change the setting from the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type.</b></li> </ul> <p><b>b</b> Print the document.</p> <p>Is the paper folded or wrinkled?</p> | Contact <a href="#">customer support</a> . | The problem is solved. |

**Gray background**



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes           | No                     |
|---|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Turn off the printer, wait for 10 seconds, and then turn on the printer.</p> <p><b>b</b> Decrease toner darkness.</p> <p>From the control panel, navigate to:</p> <p><b>Settings &gt; Print &gt; Quality &gt; Toner Darkness</b></p> <p><b>c</b> Print the document.</p> <p>Does gray background appear on prints?</p> | Go to step 2. | The problem is solved. |

| Action   | Yes  | No                            |
|--|--|-------------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Does gray background appear on prints?</p>   | <p>Go to step 3.</p>                             | <p>The problem is solved.</p> |
| <p><b>Step 3</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• You can also change the setting from the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type</b>.</li> </ul> <p><b>b</b> Print the document.</p> <p>Does gray background appear on prints?</p> | <p>Go to step 4.</p>                             | <p>The problem is solved.</p> |
| <p><b>Step 4</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Does gray background appear on prints?</p>                      | <p>Go to step 5.</p>                             | <p>The problem is solved.</p> |
| <p><b>Step 5</b></p> <p><b>a</b> Update the printer firmware. For more information, see <a href="#">“Updating firmware” on page 20</a>.</p> <p><b>b</b> Print the document.</p> <p>Does gray background appear on prints?</p>  | <p>Go to step 6.</p>                             | <p>The problem is solved.</p> |
| <p><b>Step 6</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Does gray background appear on prints?</p>   | <p>Contact <a href="#">customer support</a>.</p> | <p>The problem is solved.</p> |

### Incorrect margins



| Action   | Yes                    | No   |
|--|------------------------|--|
| <p><b>Step 1</b></p> <p><b>a</b> Adjust the paper guides to the correct position for the paper loaded.</p> <p><b>b</b> Print the document.</p> <p>Are the margins correct?</p>   | The problem is solved. | Go to step 2.                              |
| <p><b>Step 2</b></p> <p><b>a</b> Set the paper size.<br/>From the control panel, navigate to:<br/><b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type</b></p> <p><b>b</b> Print the document.</p> <p>Are the margins correct?</p>  | The problem is solved. | Go to step 3.                              |
| <p><b>Step 3</b></p> <p><b>a</b> Depending on your operating system, specify the paper size from the Printing Preferences or Print dialog.<br/><b>Note:</b> Make sure that the setting matches the paper loaded.</p> <p><b>b</b> Print the document.</p> <p>Are the margins correct?</p> | The problem is solved. | Contact <a href="#">customer support</a> . |

### Light print



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.



| Action  | Yes                  | No                            |
|---|----------------------|-------------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the print light?</p>   | <p>Go to step 2.</p> | <p>The problem is solved.</p> |
| <p><b>Step 2</b></p> <p><b>a</b> Turn off the printer, wait for about 10 seconds, and then turn on the printer.</p> <p><b>b</b> Increase toner darkness.</p> <p>From the control panel, navigate to:<br/> <b>Settings &gt; Print &gt; Quality &gt; Toner Darkness</b></p> <p><b>c</b> Print the document.</p> <p>Is the print light?</p>  | <p>Go to step 3.</p> | <p>The problem is solved.</p> |
| <p><b>Step 3</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• You can also change the setting on the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type</b>.</li> </ul> <p><b>b</b> Print the document.</p> <p>Is the print light?</p> | <p>Go to step 4.</p> | <p>The problem is solved.</p> |
| <p><b>Step 4</b></p> <p><b>a</b> Depending on your operating system, specify the print resolution from the Printing Preferences or Print dialog.</p> <p><b>b</b> Set the resolution to <b>600 dpi</b>.</p> <p><b>c</b> Print the document.</p> <p>Is the print light?</p>   | <p>Go to step 5.</p> | <p>The problem is solved.</p> |

| Action   | Yes  | No   |
|--|--|--|
| <p><b>Step 5</b></p> <p><b>a</b> Remove the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light can cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Firmly shake the imaging unit to redistribute the toner.</p> <p><b>c</b> Insert the imaging unit.</p> <p><b>d</b> Turn off the printer, wait for 10 seconds, and then turn on the printer.</p> <p><b>e</b> Print the document.</p> <p>Is the print light?</p> | Go to step 6.                              | The problem is solved.                     |
| <p><b>Step 6</b></p> <p><b>a</b> Check the status of the toner cartridge.</p> <p>From the control panel, navigate to:</p> <p><b>Settings &gt; Reports &gt; Device &gt; Device Statistics</b></p> <p><b>b</b> From the Supply Information section of the pages printed, check the status of the toner cartridge.</p> <p>Is the toner cartridge near end of life?</p>  | Go to step 7.                              | Contact <a href="#">customer support</a> . |
| <p><b>Step 7</b></p> <p><b>a</b> Replace the toner cartridge.</p> <p><b>b</b> Print the document.</p> <p>Is the print light?</p>   | Contact <a href="#">customer support</a> . | The problem is solved.                     |

### Mottled print and dots



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes  | No   |
|--|--|--|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the print mottled?</p>  | Go to step 2.                              | The problem is solved.                     |
| <p><b>Step 2</b></p> <p>Check the printer for leaked toner contamination.</p> <p>Is the printer free of leaked toner?</p>  | Go to step 3.                              | Contact <a href="#">customer support</a> . |
| <p><b>Step 3</b></p> <p><b>a</b> Check the status of the imaging unit.</p> <p>From the control panel, navigate to:</p> <p><b>Settings &gt; Reports &gt; Device &gt; Device Statistics</b></p> <p><b>b</b> From the Supply Information section of the pages printed, check the status of the imaging unit.</p> <p>Is the imaging unit near end of life?</p> | Go to step 4.                              | Contact <a href="#">customer support</a> . |
| <p><b>Step 4</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Is the print mottled?</p>  | Contact <a href="#">customer support</a> . | The problem is solved.                     |

**Paper curl**



| Action   | Yes           | No                     |
|--|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the paper loaded is supported.</p> <p><b>Note:</b> If paper is not supported, then load a supported paper.</p> <p><b>b</b> Print the document.</p> <p>Is the paper curled?</p> | Go to step 2. | The problem is solved. |

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the paper curled?</p>  | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Adjust the guides in the tray to the correct position for the paper loaded.</p> <p><b>b</b> Print the document.</p> <p>Is the paper curled?</p>  | Go to step 4.                              | The problem is solved. |
| <p><b>Step 4</b></p> <p><b>a</b> Depending on your operating system, specify the paper size and paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the settings match the paper loaded.</li> <li>• You can also change the setting on the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type</b>. For non-touch-screen printer models, press <b>OK</b> to navigate through the settings.</li> </ul> <p><b>b</b> Print the document.</p> <p>Is the paper curled?</p> | Go to step 5.                              | The problem is solved. |
| <p><b>Step 5</b></p> <p><b>a</b> Remove paper, flip it over, and then reload paper.</p> <p><b>b</b> Print the document.</p> <p>Is the paper curled?</p>   | Go to step 6.                              | The problem is solved. |
| <p><b>Step 6</b></p> <p><b>a</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you are ready to use it.</p> <p><b>b</b> Print the document.</p> <p>Is the paper curled?</p>   | Contact <a href="#">customer support</a> . | The problem is solved. |

### Print crooked or skewed



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Adjust the paper guides in the tray to the correct position for the paper loaded.</p> <p><b>b</b> Print the document.</p> <p>Is the print crooked or skewed?</p>  | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Load paper from a fresh package.</p> <p><b>Note:</b> Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you are ready to use it.</p> <p><b>b</b> Print the document.</p> <p>Is the print crooked or skewed?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Check if the paper loaded is supported.</p> <p><b>Note:</b> If paper is not supported, then load a supported paper.</p> <p><b>b</b> Print the document.</p> <p>Is the print crooked or skewed?</p>  | Contact <a href="#">customer support</a> . | The problem is solved. |

### Solid black pages



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Is the printer printing solid black pages?</p>  | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Is the printer printing solid black pages?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p>Check the imaging unit for signs of damage.</p> <p><b>Note:</b> Make sure that the photoconductor drum contact is not bent or out of place.</p> <p>Is the imaging unit free from damage?</p>  | Contact <a href="#">customer support</a> . | Go to step 4.          |
| <p><b>Step 4</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Is the printer printing solid black pages?</p>  | Contact <a href="#">customer support</a> . | The problem is solved. |

**Text or images cut off**



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Are text or images cut off?</p>  | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Are text or images cut off?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Are text or images cut off?</p>  | Contact <a href="#">customer support</a> . | The problem is solved. |

### Toner easily rubs off



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Does toner easily rub off?</p>   | Go to step 2.                              | The problem is solved. |
| <p><b>Step 2</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• You can also change the setting on the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type.</b></li> </ul> <p><b>b</b> Print the document.</p> <p>Does toner easily rub off?</p> | Contact <a href="#">customer support</a> . | The problem is solved. |

### Horizontal light bands



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes           | No                     |
|---|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Do horizontal light bands appear on prints?</p> | Go to step 2. | The problem is solved. |



| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Do horizontal light bands appear on prints?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Do horizontal light bands appear on prints?</p>  | Contact <a href="#">customer support</a> . | The problem is solved. |

### Vertical light bands



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes           | No                     |
|---|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Do vertical light bands appear on prints?</p> | Go to step 2. | The problem is solved. |

| Action   | Yes  | No                     |
|--|--|------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Check the status of the toner cartridge.<br/>From the control panel, navigate to:<br/><b>Settings &gt; Reports &gt; Device &gt; Device Statistics</b></p> <p><b>b</b> From the Supply Information section of the pages printed, check the status of the toner cartridge.</p> <p>Do vertical light bands appear on prints?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Replace the toner cartridge.</p> <p><b>b</b> Print the document.</p> <p>Do vertical light bands appear on prints?</p>   | Contact <a href="#">customer support</a> . | The problem is solved. |

### Vertical white lines



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes           | No                     |
|--|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.<br/><b>Note:</b> If the cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Do vertical white lines appear on prints?</p> | Go to step 2. | The problem is solved. |

| Action  | Yes  | No                            |
|---|--|-------------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Depending on your operating system, specify the paper type from the Printing Preferences or Print dialog.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the setting matches the paper loaded.</li> <li>• You can also change the setting on the printer control panel. Navigate to <b>Settings &gt; Paper &gt; Tray Configuration &gt; Paper Size/Type</b>.</li> </ul> <p><b>b</b> Print the document.</p> <p>Do vertical white lines appear on prints?</p> | <p>Contact <a href="#">customer support</a>.</p> | <p>The problem is solved.</p> |

### Vertical dark bands



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action   | Yes                  | No                            |
|--|----------------------|-------------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark bands appear on prints?</p> | <p>Go to step 2.</p> | <p>The problem is solved.</p> |

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark bands appear on prints?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Check if a bright light enters the right side of the printer, and move the printer if necessary.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark bands appear on prints?</p>   | Contact <a href="#">customer support</a> . | The problem is solved. |

### Vertical dark lines or streaks

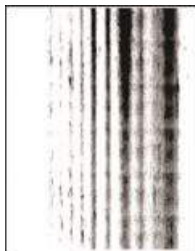


**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes           | No                     |
|---|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark lines or streaks appear on prints?</p> | Go to step 2. | The problem is solved. |

| Action  | Yes  | No                     |
|---|--|------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Remove, and then reinstall the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light can cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark lines or streaks appear on prints?</p> | Go to step 3.                              | The problem is solved. |
| <p><b>Step 3</b></p> <p><b>a</b> Replace the imaging unit.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark lines or streaks appear on prints?</p>   | Contact <a href="#">customer support</a> . | The problem is solved. |

### Vertical dark streaks with print missing



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes           | No                     |
|---|---------------|------------------------|
| <p><b>Step 1</b></p> <p><b>a</b> Remove, and then insert the imaging unit.</p> <p><b>Warning—Potential Damage:</b> Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.</p> <p><b>Warning—Potential Damage:</b> Do not touch the photoconductor drum under the imaging unit. Doing so may affect the quality of future print jobs.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark streaks with missing images appear on prints?</p> | Go to step 2. | The problem is solved. |

| Action   | Yes  | No                            |
|--|--|-------------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Check if the printer is using a genuine and supported toner cartridge.</p> <p><b>Note:</b> If the toner cartridge is not supported, then install a supported one.</p> <p><b>b</b> Print the document.</p> <p>Do vertical dark streaks with missing images appear on prints?</p> | <p>Contact <a href="#">customer support</a>.</p> | <p>The problem is solved.</p> |

### Repeating defects



**Note:** Before solving the problem, print the Print Quality Test Pages. From the control panel, navigate to **Settings > Troubleshooting > Print Quality Test Pages**. For non-touch-screen printer models, press **OK** to navigate through the settings.

| Action  | Yes   | No   |
|---|---|--|
| <p><b>Step 1</b></p> <p>Using the Print Quality Test Pages, check if the distance between the repeating defects is equal to any of the following:</p> <p><b>Imaging unit</b></p> <ul style="list-style-type: none"> <li>• 96 mm (3.78 in.)</li> <li>• 37.7 mm (1.48 in.)</li> </ul> <p><b>Toner cartridge</b></p> <ul style="list-style-type: none"> <li>• 43.5 mm (1.71 in.)</li> <li>• 37.5 mm (1.48 in.)</li> </ul> <p><b>Transfer roller</b></p> <ul style="list-style-type: none"> <li>• 52 mm (2.05 in.)</li> </ul> <p><b>Fuser</b></p> <ul style="list-style-type: none"> <li>• 79.8 mm (3.14 in.)</li> <li>• 62.5 mm (2.46 in.)</li> </ul> <p>Does the distance between the repeating defects match the toner cartridge or imaging unit measurements?</p> | <p>Go to step 2.</p> <p><b>Note:</b> If the repeating defects match the transfer roller or fuser measurements, then contact <a href="#">customer support</a>.</p> | <p>Take note of the distance, and then contact <a href="#">customer support</a>.</p> |

| Action   | Yes  | No                            |
|--|--|-------------------------------|
| <p><b>Step 2</b></p> <p><b>a</b> Replace the affected supply item.</p> <p><b>b</b> Print the document.</p> <p>Do the repeating defects appear?</p> | <p>Contact <a href="#">customer support</a>.</p> | <p>The problem is solved.</p> |

## Contacting customer support

Before contacting customer support, make sure to have the following information:

- Printer problem
- Error message
- Printer model type and serial number

Visit the place where you purchased your printer.

# Notices

## Product information

Product name:

Mono Laser Printers

Machine type:

4601

Model(s):

230, 280, 4a0, 480, and their equivalent models

## Edition notice

January 2021

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## Licensing notices

All licensing notices associated with this product can be viewed from the CD:\NOTICES directory of the installation software CD.

## Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

**Note:** Some modes may not apply to your product.



| 1-meter average sound pressure, dBA |                                |
|-------------------------------------|--------------------------------|
| Printing                            | One-sided: 53<br>Two-sided: 50 |
| Ready                               | 14                             |

## Waste from Electrical and Electronic Equipment (WEEE) directive



The WEEE logo signifies specific recycling programs and procedures for electronic products in countries of the European Union. We encourage the recycling of our products. If you have further questions about recycling options, contact your local sales office.

## India E-Waste notice



This product including components, consumables, parts and spares complies with the “India E-Waste Rules” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1% by weight and 0.01% by weight for cadmium, except for the exemption set in the Rule.

## Product disposal

Do not dispose of the printer or supplies in the same manner as normal household waste. Consult your local authorities for disposal and recycling options.

### Static sensitivity notice



This symbol identifies static-sensitive parts. Do not touch the areas near these symbols without first touching a metal surface in an area away from the symbol.

To prevent damage from electrostatic discharge when performing maintenance tasks such as clearing paper jams or replacing supplies, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer even if the symbol is not present.

### ENERGY STAR

Any product bearing the ENERGY STAR® emblem on the product or on a start-up screen is certified to comply with Environmental Protection Agency (EPA) ENERGY STAR requirements as of the date of manufacture.



### Temperature information

|   |   |
|---|---|
| Ambient operating temperature             | 10 to 32.2°C (50 to 90°F)                 |
| Shipping temperature                      | -40 to 40°C (-40 to 104°F)                |
| Storage temperature and relative humidity | -40 to 40°C (-40 to 104°F)<br>8 to 80% RH |

### Laser notice

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, Chapter I, Subchapter J for Class I (1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 60825-1: 2014.

Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service conditions. The printer has a non-serviceable printhead assembly that contains a laser with the following specifications:

Class: IIIb (3b) AlGaInP

Nominal output power (milliwatts): 25

Wavelength (nanometers): 775–800

## Power consumption

### Product power consumption

The following table documents the power consumption characteristics of the product.

**Note:** Some modes may not apply to your product.

| Mode       | Description   | Power consumption (Watts)  |
|------------|---|--|
| Printing   | The product is generating hard-copy output from electronic inputs.                    | One-sided: 550 (4601-230, 4601-280), 570 (4601-4a0, 4601-480)<br>Two-sided: 300 (4601-230, 4601-280), 305 (4601-4a0, 4601-480) |
| Copy       | The product is generating hard-copy output from hard-copy original documents.         | N/A  |
| Scan       | The product is scanning hard-copy documents.  | N/A  |
| Ready      | The product is waiting for a print job.   | 5.5 (4601-230, 4601-280), 4.9 (4601-4a0, 4601-480)   |
| Sleep Mode | The product is in a high-level energy-saving mode.                                    | 0.9  |
| Hibernate  | The product is in a low-level energy-saving mode.                                     | 0.1  |
| Off        | The product is plugged into an electrical outlet, but the power switch is turned off. | 0.1  |

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

### Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

|   |    |
|---|----|
| Factory default Sleep Mode Timeout for this product (in minutes): | 15 |
|---|----|

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. If the print speed is less than or equal to 30 pages per minute, then you can set the timeout only up to 60 minutes. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

### Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

|  |        |
|--|--------|
| Factory default Hibernate Timeout for this product in all countries or regions | 3 days |
|--|--------|

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

### Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

### Total energy usage

It is sometimes helpful to estimate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

## Regulatory notices for wireless products

This section contains regulatory information that applies only to wireless models.

If in doubt as to whether your model is a wireless model, go to our website.

### Modular component notice

Wireless models contain the following modular component:

Regulatory Type/Model Number LEX-M08-001; FCC ID:IYLLLEXM08001; IC:2376A-LEXM08001

To determine which modular components are installed in your particular product, refer to the labeling on your actual product.

### Exposure to radio frequency radiation

The radiated output power of this device is far below the radio frequency exposure limits of the FCC and other regulatory agencies. A minimum separation of 20 cm (8 inches) must be maintained between the antenna and any persons for this device to satisfy the RF exposure requirements of the FCC and other regulatory agencies.

## Innovation, Science and Economic Development Canada

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standards. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## **Innovation, Sciences et Développement économique Canada**

Cet appareil est conforme aux normes RSS exemptes de licence d'Innovation, Sciences et Développement économique Canada. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférences et (2) il doit accepter toutes les interférences, y compris les celles qui peuvent entraîner un fonctionnement indésirable.

## **Federal Communications Commission (FCC) compliance information statement**

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The FCC Class B limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your point of purchase or service representative for additional suggestions.

The manufacturer is not responsible for radio or television interference caused by using other than recommended cables or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate this equipment.

**Note:** To assure compliance with FCC regulations on electromagnetic interference for a Class B computing device, use a properly shielded and grounded cable such as Lexmark part number 1021231 for parallel attach or 1021294 for USB attach. Use of a substitute cable not properly shielded and grounded may result in a violation of FCC regulations.

Any questions regarding this compliance information statement should be directed to:

Director of Lexmark Technology & Services  
Lexmark International, Inc.  
740 West New Circle Road  
Lexington, KY 40550  
Telephone: (859) 232-2000  
E-mail: [regulatory@lexmark.com](mailto:regulatory@lexmark.com)

## **Innovation, Science and Economic Development Canada compliance statement**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Standard ICES-003.

## Avis de conformité aux normes de l'Innovation, Sciences et Développement économique Canada

Cet appareil numérique de classe B est conforme aux exigences de la norme canadienne relative aux équipements pouvant causer des interférences NMB-003.

### 日本の VCCI 規定

製品にこのマークが表示されている場合、次の要件を満たしています。



この装置は、クラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをしてください。

VCCI-B

## European Community (EC) directives conformity

This product is in conformity with the protection requirements of EC Council directive 2014/53/EU on the approximation and harmonization of the laws of the Member States relating to radio equipment.

A declaration of conformity to the requirements of the Directives may be obtained at

[www.lexmark.com/en\\_us/about/regulatory-compliance/european-union-declaration-of-conformity.html](http://www.lexmark.com/en_us/about/regulatory-compliance/european-union-declaration-of-conformity.html).

Compliance is indicated by the CE marking:



## EU and other countries statement of radio transmitter operational frequency bands and maximum RF power

This radio product transmits in the 2.4GHz (2.412–2.472GHz) band in the EU. The maximum transmitter EIRP power output, including antenna gain, is  $\leq 20$ dBm.

## European Community (EC) directives conformity

This product is in conformity with the protection requirements of EC Council directives 2014/30/EU, 2014/35/EU, 2009/125/EC, and 2011/65/EU as amended by (EU) 2015/863 on the approximation and harmonization of the laws of the Member States relating to electromagnetic compatibility, safety of electrical equipment designed for use within certain voltage limits, the ecodesign of energy-related products, and on the restrictions of use of certain hazardous substances in electrical and electronic equipment.

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A declaration of conformity to the requirements of the Directives may be obtained at [www.lexmark.com/en\\_us/about/regulatory-compliance/european-union-declaration-of-conformity.html](http://www.lexmark.com/en_us/about/regulatory-compliance/european-union-declaration-of-conformity.html).

This product satisfies the Class B limits of EN 55022 and EN55032 and safety requirements of EN 62368-1.

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