

# Color Quality Guide

Use the settings in the Quality menu to adjust the quality of the printed output.

## Quality menu

| Use                                                    | To                                                                                                                                                                                                     |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Print Mode</b><br>Black and White<br>Color          | Specify whether to print images in color.<br><b>Note:</b> Color is the factory default setting.                                                                                                        |
| <b>Print Resolution</b><br>4800 CQ<br>1200 dpi         | Specify the output resolution in dots per inch (dpi) or color quality (CQ).<br><b>Note:</b> 4800 CQ is the factory default setting.                                                                    |
| <b>Toner Darkness</b><br>1 to 5                        | Determine the darkness of the printed output.<br><b>Note:</b> 4 is the factory default setting.                                                                                                        |
| <b>Halftone</b><br>Normal<br>Detail                    | Enable higher frequency halftone screens.<br><b>Note:</b> Normal is the factory default setting.                                                                                                       |
| <b>Color Saver</b><br>Off<br>On                        | Reduce the amount of toner used for graphics and images, but not for text.<br><b>Note:</b> Off is the factory default setting.                                                                         |
| <b>RGB Brightness</b><br>-6 to 6                       | Adjust the RGB brightness of the output.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• 0 is the factory default setting.</li> <li>• This setting does not affect CMYK colors.</li> </ul>   |
| <b>RGB Contrast</b><br>0 to 5                          | Adjust the RGB contrast of the output.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• 0 is the factory default setting.</li> <li>• This setting does not affect CMYK colors.</li> </ul>     |
| <b>RGB Saturation</b><br>0 to 5                        | Adjust the RGB saturation in color output.<br><b>Notes:</b> <ul style="list-style-type: none"> <li>• 0 is the factory default setting.</li> <li>• This setting does not affect CMYK colors.</li> </ul> |
| *Setting is only available in the Embedded Web Server. |                                                                                                                                                                                                        |

| Use                                                                                                                                           | To                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Advanced Imaging</b><br>Color Balance<br>Color Correction<br>Color Adjust<br>Color Samples*<br>Spot Color Replacement*<br>RGB Replacement* | Customize the color of images or text in the printed output. <ul style="list-style-type: none"> <li>• <b>Color Balance</b>—Adjusts color by increasing or decreasing the amount of toner used for each color.</li> <li>• <b>Color Correction</b>—Adjusts color by modifying the color table selections. These color tables can be selected manually or as a group.</li> <li>• <b>Color Adjust</b>—Initiates a color calibration and allows the printer to adjust for color variations in output.</li> <li>• <b>Color Samples</b>—Provides default or detailed sample pages for each of the RGB and CMYK color conversion tables used in the printer.</li> <li>• <b>Spot Color Replacement</b>—Provides the capability to assign specific CMYK values to twenty named spot colors.</li> <li>• <b>RGB Replacement</b>—Provides the capability to modify up to twenty RGB color values. This feature requires the selection of the Display-True-Black color table.</li> </ul> |
| *Setting is only available in the Embedded Web Server.                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## FAQ about color printing

### What is RGB color?

RGB color is a method of describing colors by indicating the amount of red, green, or blue used to produce a certain color. Red, green, and blue light can be added in various amounts to produce a large range of colors observed in nature. Computer screens, scanners, and digital cameras use this method to display colors.

### What is CMYK color?

CMYK color is a method of describing colors by indicating the amount of cyan, magenta, yellow, and black used to reproduce a particular color. Cyan, magenta, yellow, and black inks or toners can be printed in various amounts to produce a large range of colors observed in nature. Printing presses, inkjet printers, and color laser printers create colors in this manner.

### How is color specified in a document to be printed?

Software programs are used to specify and modify the document color using RGB or CMYK color combinations. For more information, see the software program Help topics.

### How does the printer know what color to print?

When printing a document, information describing the type and color of each object is sent to the printer and is passed through color conversion tables. Color is translated into the appropriate amounts of cyan, magenta, yellow, and black toner used to produce the color you want. The object information determines the application of color conversion tables. For example, it is possible to apply one type of color conversion table to text while applying a different color conversion table to photographic images.

### What is manual color correction?

When manual color correction is enabled, the printer employs user-selected color conversion tables to process objects. Manual color correction settings are specific to the type of object being printed (text, graphics, or images). It is also specific to how the color of the object is specified in the software program (RGB or CMYK combinations). To apply a different color conversion table manually, see [“Modifying the colors in printed output” on page 3](#).

If the software program does not specify colors with RGB or CMYK combinations, then manual color correction is not useful. It is also not effective if the software program or the computer operating system controls the adjustment of colors. In most situations, setting the Color Correction to Auto generates preferred colors for the documents.

## How can I match a particular color (such as a corporate logo)?

From the printer Quality menu, nine types of Color Samples sets are available. These sets are also available from the Color Samples page of the Embedded Web Server. Selecting any sample set generates multiple-page prints consisting of hundreds of colored boxes. Each box contains a CMYK or RGB combination, depending on the table selected. The observed color of each box is obtained by passing the CMYK or RGB combination labeled on the box through the selected color conversion table.

By examining Color Samples sets, you can identify the box with color closest to the color being matched. The color combination labeled on the box can then be used for modifying the color of the object in a software program. For more information, see the software program Help topics. Manual color correction may be necessary to use the selected color conversion table for the particular object.

Selecting which Color Samples set to use for a particular color-matching problem depends on:

- The Color Correction setting being used (Auto, Off, or Manual)
- The type of object being printed (text, graphics, or images)
- How the color of the object is specified in the software program (RGB or CMYK combinations)

If the software program does not specify colors with RGB or CMYK combinations, then the Color Samples pages are not useful. Additionally, some software programs adjust the RGB or CMYK combinations specified in the program through color management. In these situations, the printed color may not be an exact match of the Color Samples pages.

## Modifying the colors in printed output

- 1 From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Correction > Manual**.
- 2 From the Advanced Imaging menu, select **Color Correction Content**.
- 3 Choose the appropriate color conversion setting.

| Object type                              | Color conversion tables                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| RGB Image<br>RGB Text<br>RGB Graphics    | <ul style="list-style-type: none"> <li>• <b>Vivid</b>—Produces brighter, more saturated colors and may be applied to all incoming color formats.</li> <li>• <b>sRGB Display</b>—Produces an output that approximates the colors displayed on a computer monitor. Black toner usage is optimized for printing photographs.</li> <li>• <b>Display-True Black</b>—Produces an output that approximates the colors displayed on a computer monitor. This setting uses only black toner to create all levels of neutral gray.</li> <li>• <b>sRGB Vivid</b>—Provides an increased color saturation for the sRGB Display color correction. Black toner usage is optimized for printing business graphics.</li> <li>• <b>Off</b></li> </ul> |
| CMYK Image<br>CMYK Text<br>CMYK Graphics | <ul style="list-style-type: none"> <li>• <b>US CMYK</b>—Applies color correction to approximate the Specifications for Web Offset Publishing (SWOP) color output.</li> <li>• <b>Euro CMYK</b>—Applies color correction to approximate Euroscale color output.</li> <li>• <b>Vivid CMYK</b>—Increases the color saturation of the US CMYK color correction setting.</li> <li>• <b>Off</b></li> </ul>                                                                                                                                                                                                                                                                                                                                 |