# Switching between Bitonal and Color Scanning with your Kodak Digital Science Color Scanner 3590C 

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## Background information

Your Kodak Digital Science Color Scanner 3590C contains two cameras: one camera captures bitonal (black-and-white) images on both sides of documents; the other camera captures color images on the front side of documents. Only one camera at a time can be in position to capture images. You can control the switch between bitonal and color scanning quickly and easily, on the fly, by feeding the Kodak-designed patch document into the scanner in portrait or landscape orientation.

Here are several frequently asked questions and the corresponding answers.

## How does the patch document work?

The patch document contains two identical patch codes (similar to a bar code). One patch code is positioned to be scanned if the patch document is fed in portrait orientation (shorter side first). The other patch code is positioned to be scanned if the patch document is fed in landscape orientation (longer side first). The patch document must be fed into the scanner as illustrated below.

Portrait orientation


Landscape orientation

Color Scanner 3590C


When you feed the patch document into your Color Scanner 3590C (see the video clip in Using the Scanner - Switching Scan Modes in the User Guide), the scanner detects the patch code and switches to the opposite scan mode. If the scanner is in color scan mode, the patch code will cause a switch to bitonal scanning; if the scanner is in bitonal scan mode, the patch code will cause a switch to color scanning. For a mixed batch of color and bitonal documents, just place a patch document into the batch between your color and bitonal documents.

## How do I get the patch document?

It's easy-you just print it yourself, as many as you need! The last page of the document you are reading is the patch document itself. Just print the quantity of patch documents you need (see Patch Document Specifications below) using a black-and-white printer. We strongly recommend that you use a laser printer because it can deliver the sharpest image quality on the patch code. The performance of inkjetprinted patch documents and copies of laser-printed patch documents cannot be guaranteed.

## Do I need two different patch documents-one to switch from bitonal to color scanning, and another to switch from color to bitonal scanning?

No. The patch document is designed to switch to the opposite scanning mode, regardless of the current mode, so only one type of patch document is required.

## How long does it take to switch between bitonal and color scanning?

Once your Color Scanner 3590C detects the patch code, it takes approximately 3-4 seconds for the scanner to switch cameras. Then document feeding starts again, automatically.

## Will the scanned patch document take up space on my computer's hard drive?

No. The scanned patch document is not saved as an image file, so it does not take up space on your hard drive or network.

## Patch document specifications

- Paper color: white
- Paper size: width- 3.5-11.7 inches (8.8-29.3 cm)
length- 8.5-17 inches (21.3-42.5 cm )
- Ink color: black
- Type of printer: a laser printer is recommended
- Contents: the patch document should contain only the two patch codes (one for portrait, one for landscape). There should be no other images or text on the patch document.
- Skew tolerance: $20^{\circ}$
- Read rate: $99 \%$


## Patch code specifications

- Dimensions: height- greater than 1 inch ( 2.5 cm )
width of narrow elements- .07 inches $(.175 \mathrm{~cm})$, plus or minus $10 \%$
width of wide elements- .18 inches ( .45 cm ), plus or minus $10 \%$
- Quality: reflectance of white elements must be greater than $65 \%$
reflectance of black elements must be less than $5 \%$
- Positioning: when you print the patch document, the leading edge of the patch code must appear $0.5-1.5$ inches ( $1.25-3.8 \mathrm{~cm}$ ) from the leading edge of the paper. It is best to have the patch code centered across the width of the paper, but it must appear at least 0.5 inches $(1.25 \mathrm{~cm})$ in from either side of the paper.

