

Kodak

Scanners

Patch Code Information

A-61599

Patch Code Information for *Kodak* Scanners

Patch description

This document provides information that supports the following scanners.

- **Kodak Scanners 9XYZ, 5XYZ, 7XYZ, i800/i1800 (with image addressing) Series Scanners and the Kodak Microimager 70**—these scanners are equipped with the Patch Reader. The Patch Reader recognizes patches with bars that are parallel to the lead edge of the document. All of these scanners may use patches for image addressing. In addition, the i800/i1800 (with image addressing) Series Scanners may use toggle patches for *Color on the Fly* functionality.
- **Kodak Scanners i280, 3590C and i600/i1800 (without image addressing) Series Scanners**—these scanners are not equipped with a Patch Reader. These scanners recognize patches with bars that are perpendicular to the lead edge of the document. These scanners will only recognize the toggle patch for *Color on the Fly* functionality and do not have image addressing.

A patch is a pattern of parallel, alternating black bars and spaces that is printed on a document. *Kodak* Scanners which have patch reading capability can recognize patch documents and automatically assign a document image level, increment the document image address, or perform *Color on the Fly* functionality.

The wide bars should be 0.20 inches (5 mm) wide \pm 0.01 inches (0.25 mm). The narrow bars and spaces should be 0.08 inches (2.03 mm) wide \pm 0.01 inches (0.25 mm). The maximum width of the patch code is 0.80 inches (20 mm) \pm 0.01 inches (0.25 mm). The minimum overall length of the patch bars is 2 inches (50 mm).

NOTE: The patch codes illustrated below are not to spec. Use the patch sheets included in this packet for specifications.

Patch Codes

Patch 2



Assigns image level 2 to the *current* document.

Patch 3



Assigns image level 3 to the *current* document.

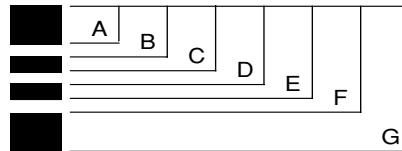
Patch T / Transfer Patch



Assigns a predefined image level to the *next* document. The predefined image level is based upon the transfer patch definition which is defined for each applica-

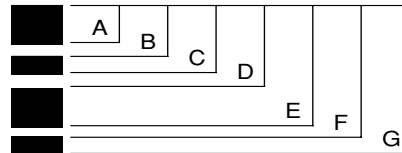
Patch code specifications

Patch 2



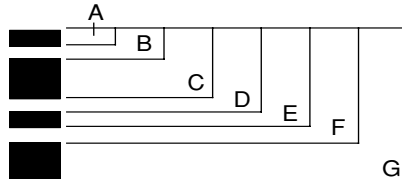
Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.19	0.21	4.83	5.33
B	0.27	0.29	6.86	7.37
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.51	0.53	12.95	13.46
F	0.59	0.61	14.99	15.49
G	0.79	0.81	20.07	20.57

Patch 3



Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.19	0.21	4.83	5.33
B	0.27	0.29	6.86	7.37
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.63	0.65	16.00	16.51
F	0.71	0.73	18.03	18.54
G	0.79	0.81	20.07	20.57

Patch T / Transfer Patch



Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.07	0.09	1.78	2.29
B	0.15	0.17	3.81	4.32
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.51	0.53	12.95	13.46
F	0.59	0.61	14.99	15.49
G	0.79	0.81	20.07	20.57

tion. For example, if the transfer patch definition is image level 2, then use of a transfer patch assigns image level 2 to the *next* document.

Patch Types 1, 4 and 6 can be used by the host for post-scan image control for the i800/i1800 (with image addressing) Series Scanners (they are not used for image addressing).

The Toggle Patch may be used to switch back and forth from bi-tonal and color/grayscale scanning for the i280, 3590C, i600, i800 and i1800 (without image addressing) Series Scanners. This provides *Color on the Fly* during capture, with no need for post-scan processing by the host application.

NOTE: The patch codes illustrated below are not to spec. Use the patch sheets included in this packet for specifications.

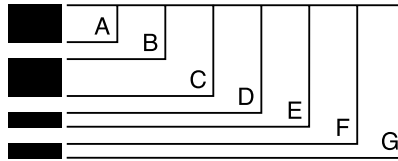
Patch Codes

Patch 1



Patch code specifications

Patch 1

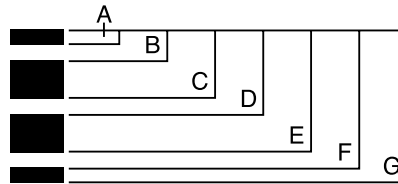


Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.19	0.21	4.83	5.33
B	0.27	0.29	6.86	7.37
C	0.47	0.49	11.94	12.45
D	0.55	0.57	13.97	14.48
E	0.63	0.65	16.00	16.51
F	0.71	0.73	18.03	18.54
G	0.79	0.81	20.07	20.57

Patch 4/Toggle Patch

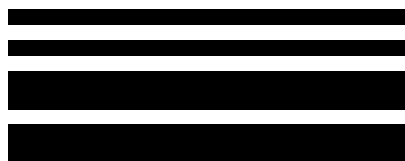


Patch 4/Toggle Patch

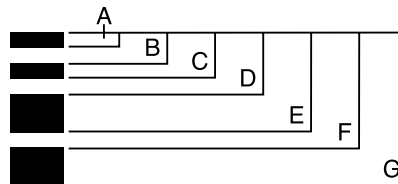


Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.07	0.09	1.78	2.29
B	0.15	0.17	3.81	4.32
C	0.35	0.37	8.89	9.40
D	0.43	0.45	10.92	11.43
E	0.63	0.65	16.00	16.51
F	0.71	0.73	18.03	18.54
G	0.79	0.81	20.07	20.57

Patch 6



Patch 6



Zone	Inches		Millimetres	
	Low Range	High Range	Low Range	High Range
A	0.07	0.09	1.78	2.29
B	0.15	0.17	3.81	4.32
C	0.23	0.25	5.84	6.35
D	0.31	0.33	7.87	8.38
E	0.51	0.53	12.95	13.46
F	0.59	0.61	14.99	15.49
G	0.79	0.81	20.07	20.57

For Kodak Scanners 9XYZ, 5XYZ, 7XYZ, i800/i1800 (with image addressing) Series Scanners and 70 Microimager:

The minimum overall length of the patch bars is 2 inches (50 mm).

Patch positioning

Horizontal and vertical placement of the patch code is critical for proper operation. If the patch code is placed improperly on the document, the patch sensors may fail to sense the patch.

- Patches should appear with the bars parallel to the leading edge of the document (fed into the transport first).
- There must be at least 0.25 inches (6 mm) of space between the patch code and any other printed information.

Horizontal placement/positioning

- There are five patch sensor locations for the scanner models listed above, except for the i1800 Series Scanners which have four patch sensor locations.
- Horizontal placement of patch codes is affected by the position of the side guides. Make certain the side guides are positioned so the patch code will be transported directly past the window in which the patch reader is installed.
- Use of a standard 2.5-inch (62.5 mm) patch code is recommended to ensure the patch code may still be read even if there is a slight variation in the positioning of the side guide(s).

Refer to Figure A.

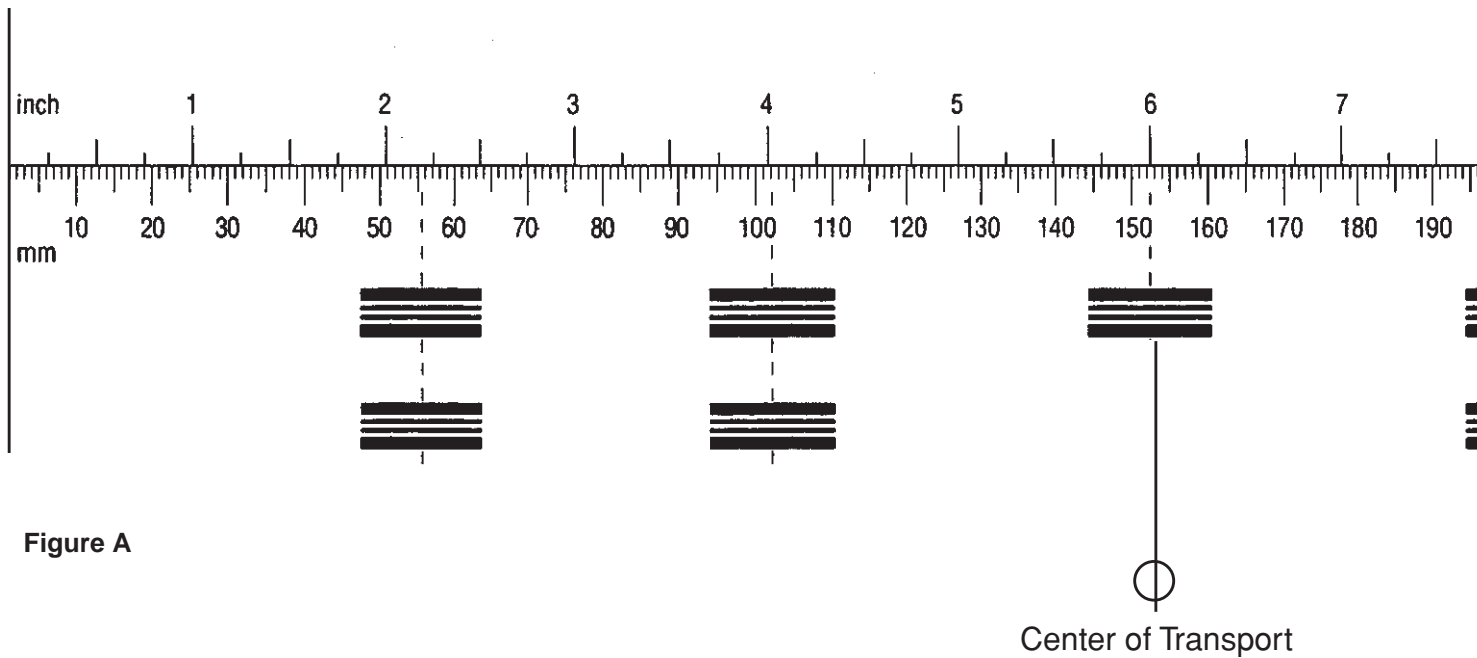


Figure A

Vertical placement/positioning

- Patch codes must appear at least 0.25 inches (6 mm) from the right, left, and leading edges of the document.
- Patch codes must appear no more than 3.75 inches (94 mm) from the leading edge of the document [1.6 inches (40 mm) on the 5XYZ and 7XYZ Scanners].

Refer to Figure B.

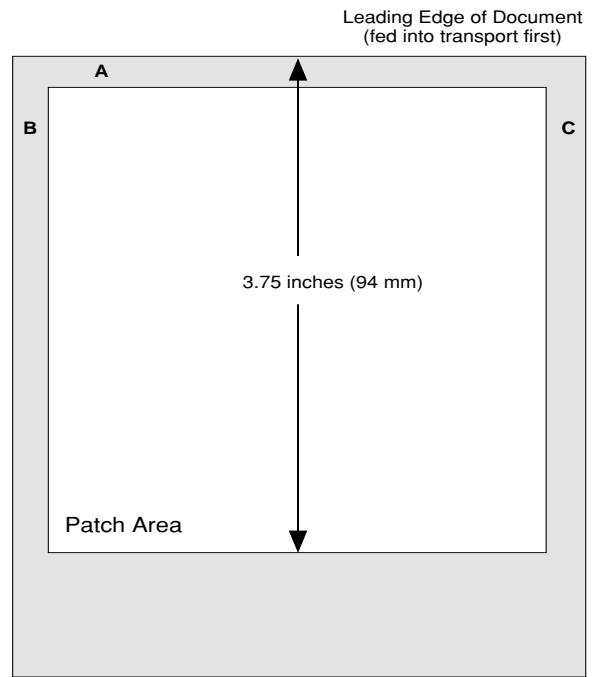
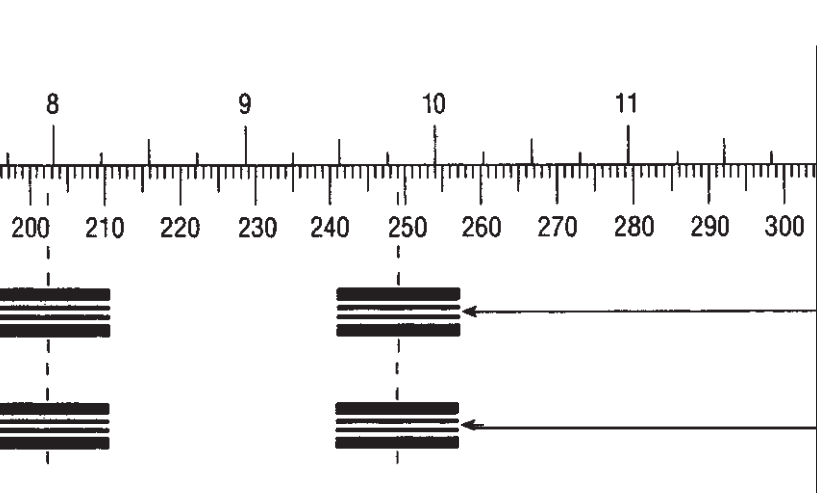


Figure B

A, B, and C = 0.25 inches (6 mm)



Patch Reader Positions
for 9XYZ, 5XYZ, 7XYZ,
i800 Series Scanners
and 70 Microimager

Patch Reader Positions
for i1800 Series Scanners
(with image addressing)

For i280, 3590C and i600/i1800 (without image addressing) Series Scanners

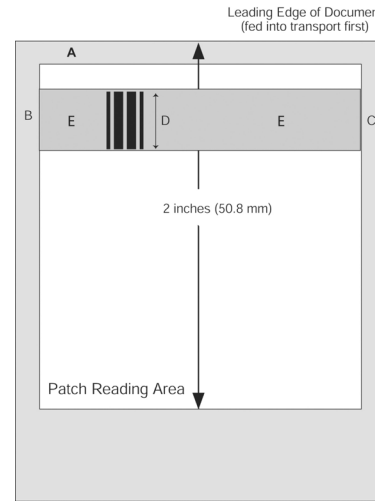
The minimum overall length of the patch bars is 0.75 inches (19 mm).

Patch Positioning

Horizontal and vertical placement of the patch code is critical for proper operation. If the patch code is placed improperly on the document, the scanner may fail to read the patch.

- Patches should appear with the bars perpendicular to the lead edge of the document (fed into the transport first).
- Any other (non-patch) printed information to the left or right of the patch could cause false readings (see “E” on the illustration).
- Patch codes must be at least 0.25 inches (6 mm) from the left and right edge of the document and must appear at least 0.5 inches (12.7 mm) from the lead edge of the document.

- The Patch Reading Area ends 2.0 inches from the lead edge of the document. At least 0.75 inches of the patch code must appear within the Patch Reading Area.



A = greater than or equal to 0.5 inches (12.7 mm)
B, C = greater than or equal to 0.25 inches (6 mm)
D = minimum of 0.75 inches (19 mm)
E = no printed information to the left/right of the patch

For All Scanners

Printing specifications

A patch code is a parallel pattern of bars (black, low reflectance) and spaces (clear, high reflectance).

The ink used to print the black bars must be carbon-based black or equivalent. The printed black bars must reflect less than 20% of the light source.

The bond paper that forms the spaces must be white or a light pastel color that reflects at least 65% of the light source.

This package contains several pages of camera-ready patch codes. These copies adhere to the specifications provided and may be used by a printer when creating patch documents.

Two types of camera-ready patch codes are provided:

- 2.5-inch (62.5 mm) long patch codes which may be used when preprinting patch code labels or when printing patch codes directly on application documents.
- Full-page width and full-page length patch code documents which may be used to create full-page patch documents which are used as batch headers; interleaved among application documents. These full-page patches may be fed into the transport without regard to orientation.

Reliability requirements

- Print the patch code only on the top page of multiple-part forms with carbon paper inserts. Smudged carbon in the patch code area can cause false readings.
- If patch-coded forms are printed in pads, make sure the torn edges are not fed into the machine first (not the leading edge). A ragged leading edge preceding the patch code may cause the distance to the first bar to be out of tolerance.
- Avoid photocopying patches. Photocopiers tend to increase the size of the black bars while simultaneously reducing the white space, thus altering the print specifications.
- Print patch codes with carbon-based ink.
NOTES: Ink which is used to print bar codes typically has a high carbon content.
Soy-based inks are not recommended.
- Avoid printing patches on glossy paper. Glare can cause the patch to be misread.

A-61599 10/06
Printed in U.S.A.

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Document Imaging
Rochester, New York 14650
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