



Document Scanner 9500  
and Document  
Scanner/Microimager 990

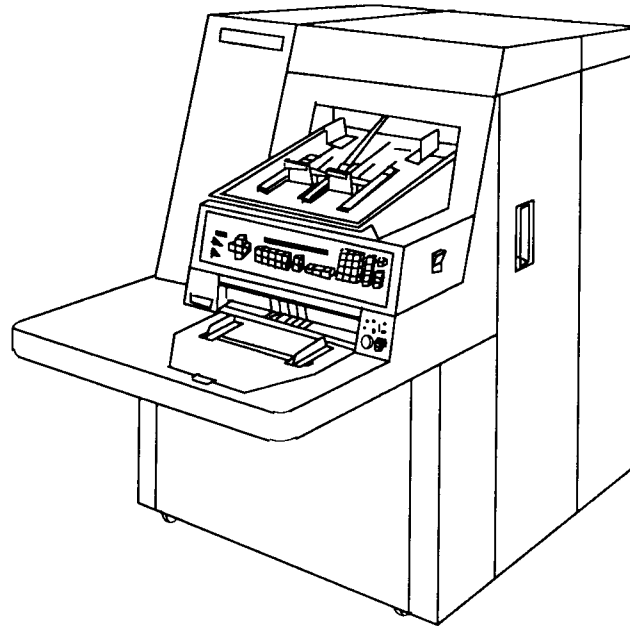
**Product  
Information**

# ***Kodak Digital Science Document Scanner 9500***

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## **Product description**

The *Kodak Digital Science Document Scanner 9500* is a high-speed (up to 155 pages-per-minute\*), medium- to high-resolution (up to 300 dpi) rotary scanner designed for high-volume digital capture of business documents. The Scanner 9500 captures printed characters, handwritten text, and graphics from documents of various sizes (from 2.5 in [64 mm] to 30 in [762 mm] long and from 2.5 in [64 mm] to 12 in [305 mm] wide) and thicknesses (standard documents up to 0.014 inches [0.36 mm]; even thicker documents may be scanned using the gap release feature).



Customers may choose the Scanner 9500S (simplex) which captures a page image from single-sided pages or the Scanner 9500D (duplex) which captures front and back page images from two-sided pages in a single pass.

Page images are transmitted to a host computer along with an image header which contains a variety of information, allowing for easy indexing, database storage and retrieval.

\* Standard-sized documents fed in landscape orientation; continuous transport using the Semi-Automatic Feeder.

## Features and benefits

The Document Scanner 9500 offers the following features and benefits:

- Freestanding floor console unit.
- Control Panel which provides an easy-to-use operator interface with: equipment operation keys, standard function keys, programmable function keys, numeric keypad, status indicators, and an 80-character LCD Status Display which reflects the current setup and displays operator messages.
- Gap Adjustment Knob and Gap Release Lever which allows for adjusting varying document thicknesses.
- Documents are loaded and unloaded from the front and returned to the exit hopper in their original sequence.
- Adaptive Threshold Processor which provides uniform image quality of scanned documents regardless of their color, paper texture, print color or density.
- Access doors allow easy access to the document transport system without removing the feeder, transport plates, etc. or moving the Scanner away from the wall.
- Easy daily calibration is performed by feeding a white sheet of paper.
- Easy daily, weekly, monthly and annual maintenance routines which require an average of only ten minutes per day.
- Computer-based diagnostics and modular design enable quick and easy problem diagnosis and repair, reducing downtime.
- Selectable scan resolution from 300–70 dpi.
- Image compression (GIII 1-dimensional; GIII 2-dimensional; GIV).
- Image processing capabilities (such as cropping, image enhancement filters, noise filter, screening/dithering, thresholding, etc.).
- Resettable document counter.
- Automatically generates image addresses (from a customer-defined base address).
- Eighteen programmable modes provide customization for specific applications.

## Optional accessories

All accessories have been designed to operate at paper transport speed. Using these accessories will not reduce overall processing speed.

The following accessories are available to customize scanner applications:

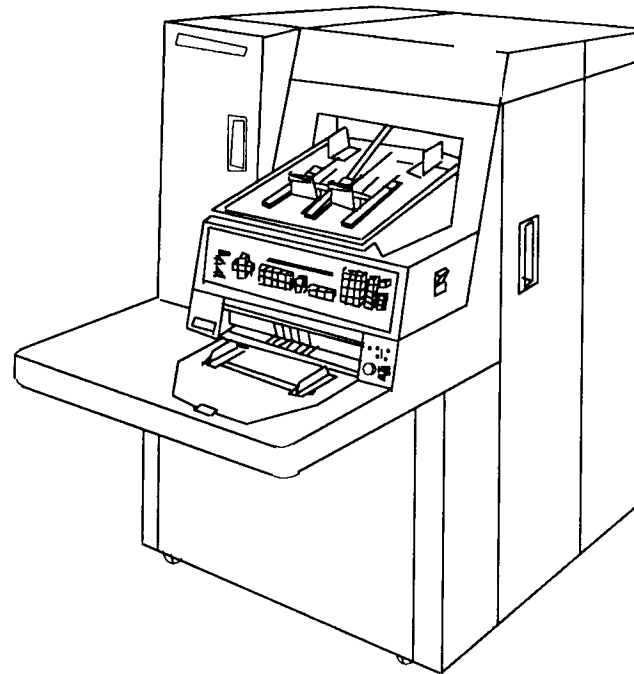
- **Advanced Document Controller** — detects document overlap and skew.
- **Bar Code Reader** — provides a hands-off method of entering data by automatically reading and decoding information encoded in bar code form. Decoded bar code information is included in the image header.
- **Check Feeder** — provides continuous feeding of check-sized documents.
- **Check Stacker** — provides continuous stacking of check-sized documents.
- **Document Printer Controller** — allows use of the document printers (one or two DP1 printers, and one DP12 printer).
- **Document Printer 1** — allows customer-specified information to be printed on documents (single line, vertical orientation—38 characters maximum) as they pass through the transport system. This information is used for document identification and tracking.
- **Document Printer 12** — allows customer-specified information to be printed on documents (multiple lines, horizontal orientation—144 characters maximum) as they pass through the transport system. This information is used for document identification and tracking.
- **Endorser** — automatically imprints endorsements on the rear side of documents (with a variety of die stamp styles) as they pass through the transport system.
- **Footswitch** — provides a hands-off method of performing document level changes or commonly used functions while documents are being fed into the transport system.
- **Imaging Station Lamps** — provides color form drop-out capability for more efficient document storage.
- **Patch Reader** — controls document level changes by automatically sensing a predefined patch code and changing the document level accordingly.

# ***Kodak Digital Science Document Scanner/Microimager 990***

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## **Product description**

The *Kodak Digital Science Document Scanner/Microimager 990* is a high-performance (up to 120 pages-per-minute\*) rotary document scanner and microfilmer designed for medium- to high-volume digital capture of business documents. The Scanner/Microimager 990 captures printed characters, handwritten text, and graphics from documents of various sizes (from 2.5 in [64 mm] to 30 in [762 mm] long and from 2.5 in [64 mm] to 12 in [305 mm] wide) and thicknesses (standard documents up to 0.014 inches [0.36 mm]; even thicker documents may be scanned/filmed using the gap release feature).



The Scanner/Microimager 990S captures front and back page images from two-sided documents on film while simultaneously scanning the front side.

The Scanner/Microimager 990D captures front and back page images from two-sided documents on film while simultaneously scanning the front and back sides.

Scanned page images are transmitted to a host computer along with an Image Header which contains a variety of information, allowing for easy

## Features and benefits

The Document Scanner 990 offers the following features and benefits:

- Control Panel which provides an easy-to-use operator interface with: equipment operation keys, standard function keys, programmable function keys, numeric keypad, status indicators, and a LCD Status Display which reflects the current setup and displays operator messages.
- Gap Adjustment Knob and Gap Release Lever which allows for adjusting varying document thicknesses.
- Documents are loaded and unloaded from the front and returned to the exit hopper in their original sequence.
- Access doors allow easy access to the document transport system without removing the feeder, transport plates, etc. or moving the Scanner away from the wall.
- Easy daily calibration is performed by feeding a white sheet of paper.
- Easy daily, weekly, monthly and annual maintenance routines which require an average of only ten minutes per day.
- Computer-based diagnostics and modular design enable quick and easy problem diagnosis and repair, reducing downtime.
- Selectable scan resolution from 200–67 dpi.
- Image compression (GIII 1-dimensional; GIII 2-dimensional; GIV).
- Image processing capabilities (such as cropping, image enhancement filters, noise filter, screening/dithering, thresholding, etc.).
- Resettable document counter.
- Image addresses automatically generated (from a customer-defined base address).
- Eighteen programmable modes provide customization for specific applications.
- Event confirmation tones/lights.
- Programmable in five languages.
- Standard SCSI-2 interface.
- Simplex, duplex and duo filming.

## Optional accessories

All accessories have been designed to operate at paper transport speed. Using these accessories will not reduce overall processing speed.

The following accessories are available to customize scanner/microimager applications:

- **Adaptive Threshold Processor** — provides uniform image quality of scanned documents regardless of their color, paper texture, print color or density.
- **Advanced Document Controller** — detects document overlap and skew.
- **Bar Code Reader** — provides a hands-off method of entering data by automatically reading and decoding information encoded in bar code form. Decoded bar code information is included in the image header.
- **Check Feeder** — provides continuous feeding of check-sized documents.
- **Check Stacker** — provides continuous stacking of check-sized documents.
- **Document Printer Controller** — allows use of the document printers (one or two DP1 printers, and one DP12 printer).
- **Document Printer 1** — allows customer-specified information to be printed on documents (single line, vertical orientation—38 characters maximum) as they pass through the transport system. This information is used for document identification and tracking.
- **Document Printer 12** — allows customer-specified information to be printed on documents (multiple lines, horizontal orientation—144 characters maximum) as they pass through the transport system. This information is used for document identification and tracking.
- **Endorser** — automatically imprints endorsements on the rear side of documents (with a variety of die stamp styles) as they pass through the transport system.
- **Film Writing Module** — allows information to be written on the film next to each document image for document identification and tracking.
- **Footswitch** — provides a hands-off method of performing document level changes or commonly used functions while

- **Patch Reader** — controls document level changes by automatically sensing a predefined patch code and changing the document level accordingly.
- **Scanner/Microimager 990S-990D Upgrade Module** — allows for an upgrade from a Scanner 990S to a Scanner 990D.
- **Semi-Automatic Feeder** — allows for manual feeding (one document at a time) or automatic feeding of mixed size documents (a group/batch of documents at a time).
- **Smart Cassettes 100 and 215** — features foolproof duo mode, easy threading and graphic display of film remaining.
- **Workstation Side Console**



## Product Comparison Matrix

Feature	Scanner 9500	Scanner/Microimager 990
<b>Speed*</b>		
≈ 200 dpi	120 pages per minute	90 pages per minute
> 200 dpi ≈ 300 dpi	80 pages per minute	n/a
<b>Scanning capabilities</b>		
Scanning modes	simplex and duplex	simplex and duplex
Resolution	300–70 dpi	200–67 dpi
Buffer size	4 megabytes (simplex) 8 megabytes (duplex)	4 megabytes (simplex) 8 megabytes (duplex)
<b>Microfilming capabilities</b>		
Film modes	n/a	simplex, duplex and duo
Reduction ratios	n/a	24X (simplex) 40X (simplex, duplex, duo) 50X (simplex, duplex, duo)
Number of film cassettes	n/a	minimum of 1 maximum of 2
Film cassette types	n/a	Smart Cassette 100 Smart Cassette 215
Film types	n/a	HQ Microfilm 1461 (Estar Base) 16 mm x 30.5 m (100 ft) HQ Microfilm 3461 (Estar Base) 16 mm x 65.5 m (215 ft)
Programmable application modes	18	18
Programmable control panel keys (P-keys)	10	10
<b>Image Address</b>		
Maximum length	15 characters (12 alphanumeric; 3 delimiter)	15 characters (12 alphanumeric; 3 delimiter)

<b>Feature</b>	<b>Scanner 9500</b>	<b>Scanner/Microimager 990</b>
<b>Original document specifications</b>		
Document width	2.5 – 12 inches 64 – 305 mm	2.5 – 12 inches 64 – 305 mm
Document length	2.5 – 30 inches* 64 – 508 mm	2.5 – 30 inches* 64 – 508 mm
Document thickness	0.0015 – 0.014 inches 0.0381 – 0.36 mm	0.0015 – 0.014 inches 0.0381 – 0.36 mm
<b>Maximum feed height</b>		
Semi-automatic feeder	1.5 inches approx. 350 sheets	1.5 inches approx. 350 sheets
Check feeder	1.5 inches approx. 350 sheets	1.5 inches approx. 350 sheets
<b>Maximum stack height</b>		
Std exit hopper	2 inches	2 inches
Check stacker**	approx. 465 sheets	approx. 465 sheets
<b>Feeder/Stacker options</b>		
Check feeder	Y	Y*
Check stacker	Y	Y
<b>Optional capabilities</b>		
Bar Code reading for data input	Y	Y
Document printing		
38 character (DP1)	Y	Y
144 character (DP12)	Y	Y
Endorsing	n/a	Y
Film Writing	n/a	Y
Footswitch	Y	Y
Patch reading	Y	Y
End-fed	Y	Y
Skew/Length monitoring	Y	Y
<b>Image Headers</b>		

Feature	Scanner 9500	Scanner/Microimager 990
<b>Contents</b>		
Document number (sequential id)	Y	Y
Image size	Y	Y
Document level	Y	Y
Mode	Y	Y
Line length	Y	Y
Page length	Y	Y
Image Address	Y	Y
Compression type	Y	Y
Date	Y	Y
Time	Y	Y
Roll number	n/a	Y
Resolution	Y	Y
Bit order	Y	Y
Skew	Y	Y
Polarity	Y	Y
Header flags	Y	Y
Optional information	Y	Y
Electronic image retrieval methods	Header only Image only Header and Image	Header only Image only Header and Image
<b>Image Processing Capabilities</b>		
Bit order*	lsb/left to msb/right msb/left to lsb/right	lsb/left to msb/right msb/left to lsb/right
Cropping	Y	Y
Compression	G III 1-dimensional G III 2-dimensional G IV	G III 1-dimensional G III 2-dimensional G IV
Image enhancement filters	Screen removal Text Fine line	Screen removal Text Fine line
Noise filter	1 one pixels	1 one pixels

Feature	Scanner 9500	Scanner/Microimager 990
<b>Image Processing Capabilities (continued)</b>		
Screening	3-level 4-level Bayer dither 16-level 16-level Bayer dither 32 -level 64-level 64-level Bayer dither	3-level 4-level Bayer dither 16-level 16-level Bayer dither 32 -level 64-level 64-level Bayer dither
Thresholding	Adaptive Fixed Adaptive Threshold Processing (standard)	Adaptive Fixed Adaptive Threshold Processing (accessory)
<b>Integration Software</b>		
Device Driver and Toolkit	Windows Version 4.1 Sun Solaris, Version 1.1 IBM OS/2 and ImagePlus Windows NT, Version 1.0	Windows Version 4.1 Sun Solaris, Version 1.1 IBM OS/2 and ImagePlus Windows NT, Version 1.0
Capture Subsystem	Sun Solaris, Version 2.3 Windows NT, Version 3.1	Sun Solaris, Version 2.3 Windows NT, Version 3.1
<b>Equipment Dimensions</b>		
Height	48 inches / 122 cm	48 inches / 122 cm
Width	29 inches / 74 cm	29 inches / 74 cm
Depth	51 inches / 130 cm	51 inches / 130 cm
Weight	630 pounds / 227 kg	750 pounds / 340 kg
Interface	SCSI-2	SCSI-2
Ports	RS232: COIN1–Service/Diag COIN2–Bar code	RS232: COIN1–Service/Diag COIN2–Bar code

# Application Samples and Solutions

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The Scanner 9500 and Scanner/Microimager 990 are designed to improve the efficiency of general business document applications, such as record keeping and customer service.

The Scanner 9500 and Scanner/Microimager 990 serve not only the crucial function of document capture, providing extremely high productivity along with exceptional image quality, but also fulfill specific application requirements.

## Transportation: Freight and waybill processing

Requirement	Solution
Equipment capable of handling high-volume applications.	The Scanner 9500 is capable of processing an average of over 91,000 page images per 8-hour day using the Check Feeder for smaller-sized documents.
Equipment capable of capturing only a portion of a document.	The built-in image processing capabilities can be used to reduce or crop the size of the scan window.
Equipment that can reduce or eliminate the need for manual data entry of information used in tracking and billing shipments.	The Bar Code Reader can reduce or eliminate the need for manual data entry by processing information encoded in Code 3 of 9, Interleaved 2 of 5, or Codabar format. The bar codes may be preprinted on forms or printed on labels which are affixed to the documents prior to scanning.

## Sample Equipment Configuration

To implement the freight and waybill processing sample described, these equipment and accessory components and supplies should be included in the Equipment Sale and Supply order:

- Scanner 9500
- Check Feeder
- Check Stacker
- Bar Code Reader

## Insurance: Claims processing

Requirement	Solution
Equipment that can handle high-volume applications.	The Scanner/Microimager 9500 can process 30,000 standard-sized page images per 8-hour day.
Equipment that can output both electronic data images to fulfill customer service requirements and the need to handle documents twice.	The Scanner/Microimager 990 can capture page images and output them in electronic and film formats in a single pass. There are no filmed data images to fulfill record-keeping requirements.
Equipment that can accommodate a variety of document sizes, shapes, textures, and conditions.	The Semi-Automatic Feeder and transport system can handle a broad range of document sizes, shapes, textures, and conditions; there is no need to separate the claim forms from the receipts, or to be unduly concerned about the condition of the documents.
Equipment that can produce document images which are suitable for customer service.	The built-in image processing capabilities and automatic exposure control optimizes the appearance of the electronic document images, making them easy to read.
Equipment that can assist in reducing storage space requirements.	The built-in compression algorithms can be utilized to reduce the amount of storage space required for electronic document images.
Equipment that can provide automatic indexing.	<p>One of five built-in indexing schemes may be used in conjunction with a Patch Reader to make document level changes resulting in automatic generation of a unique image address for each document.</p> <p>The image address can be printed on the original document, using the Document Printer 1. This printed Image Address will also appear on the electronic image and can be used to reference the original paper, if needed.</p>

### Sample Equipment Configuration

To implement the claims processing sample described, these equipment and accessory components and supplies should be included in the Equipment Sale and Supply order:

- Scanner 9500
- Document Printer Controller
- Document Printer 1 Ink Cartridge
- Semi-Automatic Feeder
- Document Printer 1
- Patch Reader

## Pharmaceutical / Medical: Research records and patient file processing

Requirement	Solution
Equipment that can handle high-volume applications.	The Scanner/Microimager 990 can process an average of 22,000 standard-sized page images per 8-hour day.
Equipment that can output both electronic and film data images to fulfill customer service and record-keeping requirements.	The Scanner/Microimager 990 can capture page images and output them in electronic and film formats in a single pass. There is no need to handle documents twice.
Equipment that can accommodate a variety of document sizes, shapes, textures, and conditions.	The Semi-Automatic Feeder and transport system are designed to handle a broad range of document sizes, shapes, textures, and conditions; there is no need to separate the patient forms from the billing receipts.
Equipment that can produce document images which are suitable for customer service.	The built-in image processing and automatic exposure control capabilities can optimize the appearance of electronic and filmed document images making them easy to read.
Equipment that can assist in reducing storage space requirements.	<p>The built-in compression algorithms can be utilized to reduce the amount of storage space required for electronic document images.</p> <p>In addition, a drop-out color element can be used to capture information from a pre-printed form, such as the HCFA form, without capturing the pre-printed information (printed using a drop-out color ink) by hiding the pre-printed information from the Scanner/Microimager 990.</p> <p>The selection of a reduction ratio as high as 50X and a duplex or duo film mode maximizes the number of documents placed on each roll of film reducing the amount of storage space.</p>

### Sample Equipment Configuration

To implement the research records and patient file processing sample described, these key equipment and accessory components and supplies should be included in the Equipment Sale and Supply order:

- Scanner/Microimager 990
- Semi-Automatic Feeder
- Drop-Out Color Element
- HQ Microfilm 3461

## Government: Land records processing

Requirement	Solution
Equipment that can output both electronic and filmed data images to fulfill customer service and record-keeping requirements.	The Scanner/Microimager 990 can capture page images and output them in electronic and film formats in a single pass. There is no need to handle documents twice.
Equipment that can produce document images which are suitable for customer service.	The built-in image processing and automatic exposure control capabilities can optimize the appearance of the electronic and filmed document images making them easy to read.
Equipment that can provide consistent indexing and cross-referencing capabilities across all media types (original, electronic, and film).	<p>One of five built-in indexing schemes may be used in conjunction with a Patch Reader to make document level changes resulting in automatic generation of a unique image address for each document.</p> <p>The image address can be printed on the original document, using the Document Printer 1, as well as written on film next to the filmed document image using the Film Writing Module.</p> <p>The roll number corresponding to the roll of film on which the filmed document image is stored can also be included in the scanned document.</p>

### Sample Equipment Configuration

To implement the land records processing sample described, these equipment and accessory components and supplies should be included in the Equipment Sale and Supply order:

- Scanner/Microimager 990
- Semi-Automatic Feeder
- Document Printer Controller
- Document Printer 1
- Document Printer 1 Ink Cartridge
- Film Writing Module
- HQ Microfilm 1461
- Smart Cassette 100



# Equipment, Software, Parts, Tools and Supplies

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## New equipment

An Equipment Sale and Supply Order (ES&S) must be completed using the information contained in this section.

Mainframe	Catalog Number
Scanner 9500S	187-9287
Scanner 9500D	165-2866
Scanner/Microimager 990S	194-6227
Scanner/Microimager 990D	816-6621

Accessory	Catalog Number	9500		990	
		S	D	S	D
Advanced Document Controller	820-6880	x	x	x	x
Bar Code Reader	822-0790				
Document Printer Controller	816-8684	x	x	x	x
Document Printer 1	140-3021	x	x	x	x
Document Printer 12	833-4872	x	x	x	x
Document Scanning Array (DSA)	849-8198	x	x	std	std
Endorser	800-7106			x	x
Film Writing Module	192-7912			x	x
Footswitch	124-8707	x	x	x	x
Patch Reader	833-9749	x	x		
DSA Patch Reader	864-6556			x	x
Check Feeder	177-5030	x	x	x	
Check Stacker (Scanner)	801-4318	x	x	x	x
Self-Centering Feed Tray	124-2130	x	x	x	std
Semi-Automatic Feeder	129-9163	x	x	x	std
Imaging Interface Kit	151-3126	x	x		x
Workstation Side Console	844-2915	x	x	x	x
Adaptive Threshold Processor (simplex)	890-5739	std		x	

**Scanner 9500**

The following will assist you in determining which accessories to order when patch reading or bar code reading is required.

<b>Desired Functionality</b>	<b>Required Accessories</b>	<b>Catalog #</b>
Patch	Patch Reader	833-9749
Bar Code	Bar Code Reader	822-0790
Patch Bar Code	Patch Reader Bar Code Reader	833-9749 822-0790

**Scanner 990**

The following will assist you in determining which accessories to order when patch reading or bar code reading is required.

**Scanner/Microimager 990S (simplex)**

<b>Desired Functionality</b>	<b>Required Accessories</b>	<b>Catalog #</b>
Patch	DSA Patch Reader	864-6556
Bar Code	Bar Code Reader	822-0790
Patch Bar Code	DSA Patch Reader Bar Code Reader	864-6556 822-0790

**Scanner/Microimager 990D (duplex)**

<b>Desired Functionality</b>	<b>Required Accessories</b>	<b>Catalog #</b>
Patch	DSA Patch Reader Imaging Interface Kit	864-6556 151-3126
Bar Code	Bar Code Reader Imaging Interface Kit	822-0790 151-3126
Patch Bar Code	DSA Patch Reader Bar Code Reader	864-6556 822-0790

## Upgrade equipment

The following tables will assist you in determining which accessories to order when patch reading or bar code reading is being added/upgraded.

If your current mainframe does not have any accessories functionality (i.e. patch reading or bar code reading).

From	To	Required Accessory	Catalog #
9500S	9500D	9000S to 9000D Upgrade Module	TC

### Scanner/Microimager 990S (simplex)

Current Functionality	Additional Functionality	Required Accessory	Catalog #
Patch reading	Bar code reading	Bar Code Reader	822-0790
Bar code reading	Patch reading	DSA Patch Reader	864-6556

### Scanner/Microimager 990D (duplex)

Current Functionality	Additional Functionality	Required Accessory	Catalog #
Patch reading	Bar code reading	Bar Code Reader	822-0790

## Software

Software available to assist in the integration of the Scanner 9500 and Scanner/Microimager 990. The software listed below is enabling software. Kodak has other software solutions available, for more information call your local Kodak representative.

The desired software must be included on the ES&S.

NOTE: Integration software is licensed through BIS VAR/System Integrators.

### Mode Setup Software

Software	Catalog #
Mode Setup Software	183-1072

### Device Drivers/Toolkits

Operating System	Catalog #
Sun SCSA, SunOS 4.1.2	894-6543
Microsoft DOS	816-4261
386/486 AT	861-2046

## Parts and tools

This section lists the parts and tools which are needed to properly maintain your system, as described in the appropriate *User's Guide*.

NOTE: Field Engineers/Specialists are not authorized to order these items; they should be ordered by the customer.

Part/Tool	Order Number
Upper Imaging Guide	964365
Lower Imaging Guide	942000
Scanner 923 Air Filter (used on 9500)	942890
Scanner/Microimager 990 Air Filter	321984
Exposure System Fluorescent Lamps (4 required)	964683
Document Scanning Array White Element	912583
Cassette Storage Carton	984059
Film Take-up Spool	870564
Document Printer Blotter Set	984370
Document Printer 12 Priming Syringe	TL 4547
Bar Code Reader Standard Test Document Set	TL-4528
Staticide Wipes (box of 24 wipes)	1C8102
Round Cleaning Brush, natural bristle	TL 2253
Flat Cleaning Brush, natural bristle	TL 2156

### United States and Canada:

Parts and tools are available through Parts Services at Eastman Kodak Company:

- Call Parts Services at 1 (800) 431-7278; or
- Send a facsimile order to (716) 724-3051.

### Asia Pacific Region; Europe, Africa, Middle East; and Latin America Region:

Parts and tools are available through Parts and tools are available through Eastman Kodak Company's Parts Services.

## Supplies

Following is a listing of supplies which are required when using the Scanner/ Microimager 990, Document Printer 1, Document Printer 12, Endorser, or color drop-out capability.

Start-up supplies may also be included on the ES&S order. Ask your local Kodak sales representative who/where to contact when replenishing supplies.

NOTE: Field Engineers/Specialists are not authorized to order these items; they should be ordered by the customer.

## Film supplies

Supply	Catalog #
Smart Cassette 100	153-7166
Smart Cassette 215	835-7584
HQ Microfilm 1461 ( <i>Estar</i> Base) 16mm x 30.5 m (100 ft)	822-3232
HQ Microfilm 3461 ( <i>Estar</i> Base) 16mm x 65.5 m (215 ft)	845-1502

## Accessory supplies

### Document Printer 1

Supply	Catalog #
Ink Cartridge—Black	822-3893

### Document Printer 12

Supply	Catalog #
Ink Cartridge Care Kit	111-7811
Ink Cartridge—Black	172-5175
Ink Cartridge—Magenta	170-6274
Ink Cartridge Replenisher Black (pkg of 4)	186-3406
Ink Cartridge Replenisher Magenta (pkg of 4)	182-8904

### **Endorser**

It is recommended that at least one die drum, one die set, and two ink rollers be included on the ES&S order.

<b>Supply</b>	<b>Catalog #</b>
Die Drum	822-6896
Die Drum—Payee	835-7683
Die Drum—International	831-6770
Die Set	157-6172
Die Set—Payee	822-7456
Die Set—Special	804-7532
Ink Roller—Red	149-1984
Ink Roller—Purple	149-1018
Ink Roller—Green	104-0492
Ink Roller—Black	142-0272

### **Document Scanning Array Lamps (990)**

<b>Supply</b>	<b>Catalog #</b>
Red Drop-Out Color Element	806-0824
Green Drop-Out Color Element	817-8626
Blue Drop-Out Color Element	813-7903

### **Imaging Station Lamps (9500)**

<b>Supply</b>	<b>Catalog #</b>
Red Imaging Drop-Out Color Element (set of 2)	175-9893
Green Imaging Drop-Out Color Element (set of 2)	104-9675
Blue Imaging Drop-Out Color Element (set of 2)	160-0410

# Publications

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## Available publications

The following publications are available for the Scanner Products.

<b>Code #</b>	<b>Description</b>
A-61091	<i>Kodak Digital Science</i> Document Scanner 9500 and 990 Scanner/Microimager Integrator's Guide
A-61092	<i>Kodak Digital Science</i> Document Scanner 9500 User's Guide
A-61093	<i>Kodak Digital Science</i> Document Scanner 9500 and 990 Scanner/Microimager Product Information
A-61094	<i>Kodak Digital Science</i> Document Scanner 9500 and 990 Scanner/Microimager Installation Planning Guide
A-61095	<i>Kodak Digital Science</i> Document Scanner 9500 and 990 Scanner/Microimager User's Reference
A-61096	<i>Kodak Digital Science</i> Document Scanner 990 Scanner/Microimager User's Guide
A-61097	<i>Kodak Digital Science</i> Document Scanner 9500 and 990 Scanner/Microimager Installation Questionnaire Instructions (Mode Setup Instructions)
A-61098	<i>Kodak Digital Science</i> Document Scanner 9500 and 990 Scanner/Microimager Installation Accessories Guide
A-61099	Bar Code Made Easy
A-61599	Patch Code Information
A-61004	OS/2 Device Driver Installation and Integration Guide (IBM ImagePlus® only)
A-61030	Device Driver/Toolkit Sun Solaris Systems Product Guide
A-61160	Device Driver/Toolkit Windows Product Guide (Windows/95/NT)
A-61025	Sun Solaris Capture Subsystem Operator's Manual
A-61026	Sun Solaris Capture Subsystem Administrator's Guide
A-61027	Sun Solaris Capture Subsystem Integrator's Guide
A-61052	Windows NT User's and Administrator's Guide
A-61051	Windows NT Integrator's Guide

**United States and Canada:**

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- Send written requests to:

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BIS Order Desk  
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Rochester, New York 14653-6204

Place telephone requests toll-free between 8:00 a.m. and 8:00 p.m. (EST) Monday through Friday: 1 (800) 828-5921.

Facsimile requests should be sent to: 1 (800) 535-4622.

**Asia Pacific Region; Europe, Africa, Middle East; and Latin America Region:**

Scanner 9500/990 publications are available through local channels. Please contact your local Kodak representative for details.



## Performance and Standards

Following are the maximum machine throughput in pages per hours at base resolutions (200 and 300 dpi) for the Scanner 9500 and Scanner/Microimager 990.

Document Size	Base Resolution 200 dpi				Base Resolution 300 dpi			
	9500	9500	990	990	9500	9500	990	990
	Portrait	Landscape	Portrait	Landscape	Portrait	Landscape	Portrait	Landscape
5.8" x 8.3" (A5) 148 mm x 210 mm	9,700	13,600	6,970	9,530	6,400	8,975	n/a	n/a
8.3" x 11.7" (A4) 210 mm x 297 mm	7,000	9,700	5,100	6,970	4,620	6,400	n/a	n/a
8.5" x 11" (Letter) 216 mm x 279 mm	7,400	9,500	5,400	6,820	4,880	6,270	n/a	n/a
8.5" x 14" (Legal) 216 mm x 356 mm	5,500	n/a	4,320	n/a	3,630	n/a	n/a	n/a
11" x 14" 279 mm x 356 mm	5,500	n/a	4,320	n/a	3,630	n/a	n/a	n/a
11" x 17" 279 mm x 432 mm	4,500	n/a	3,600	n/a	2,970	n/a	n/a	n/a
11.7" x 16.5" (A3) 297 mm x 420 mm	5,000	n/a	3,705	n/a	3,300	n/a	n/a	n/a

### Agency approvals

Following are the agency approvals for the Scanner 9500 and Scanner/Microimager 990.

UL1950	US safety
CSA 950	Canadian safety
EN60 950/09.87	European safety (GS Mark for TUV)
DOC	Canadian EMI
VCCI/EN55022	Japanese EMI
EN55022/EEC499(82)	European EMI
EN55022	Australian EMI (New Zealand)
VFG 243/1991 (VDE R)	German EMI

# Technical Information

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Further information regarding any of the topics presented here is provided in *Installation Planning and System Maintenance Guide (A-61000)*.

## Installation

This equipment and accessories are installed by a Kodak Field Engineer and takes approximately 4 hours.

## Acoustical emissions

**Scanner 990** —Acoustical emissions shall be less than or equal to 67 dB during operation and less than or equal to 62 dB while idle.

**Scanner 9500** —Acoustical emissions shall be less than or equal to 76 dB during operation and less than or equal to 67 dB while idle.

## Cabling requirements

The customer/system integrator must provide the SCSI cable used to connect the equipment and host computer. It is not included with the Scanner 9500 or Scanner/Microimager 990.

## Electrical and operating requirements

This equipment is manufactured to operate within one of the following sets of power constraints or configured to do so by your Kodak Field Engineer:

Voltage	Hz/Cycles	Amps 9500	Amps 990
90 -110 V ac	50/60 Hz 1 phase	15 amps @ 100 V ac	15 amps @ 100 V ac
104 -127 V ac	60 Hz 1 phase	12 amps @ 120 V ac	12 amps @ 120 V ac
198 - 254 V ac	50 Hz 1 phase	6 amps @ 220-240 V ac	10 amps @ 220-240 V ac

A separate, dedicated power line with one duplex receptacle is required for each Scanner.

Two outlets are required:

- One individual dedicated branch AC circuit employing one standard 3-prong, grounded duplex outlets. These outlets are designated for the machine and service diagnostic equipment.

The outlets should meet the following standards:

### Voltage requirements

- Impedance between neutral and ground wires: less than 2 ohms
- Neutral to ground voltage: less than 1 volt AC maximum
- Voltage drop across circuit breaker: less than 0.1 volts
- Impluse voltage spikes transients: less than 50% of nominal line voltage
- Surge voltage: less than 5'1 of nominal line voltage

### AC power quality and conditioning

In some locations, even though recommended wiring practices have been followed, the power reaching the scanner may exhibit unstable power quality characteristics. System errors and intermittent data loss could result.

Power conditioning equipment may be required to overcome the power quality problems. Kodak can make arrangements for an on-site power analysis in an area with exceptionally unstable power.

Consult with your electrical contractor or utility company to ensure that on-site wiring complies with the specifications and that wall outlets and comply with codes

### Environmental requirements

This equipment can operate in a typical office environment under the following conditions:

Scanner	Temperature	Relative Humidity	Heat Dissipation
9500/990	59° to 86° F 15° to 30° C	15 to 76%	5200 Btu

### Dimensions and weight

This equipment has the following dimensions and weight, with all optional accessories included:

Scanner	Height	Width	Depth	Weight
9500	48 in.	29 in.	51 in.	630 lbs
	122 cm	74 cm	130 cm	227 kg
990	48 in.	29 in.	51 in.	785 lbs
	122 cm	74 cm	130 cm	356 kg

NOTE: With the Workstation Side Console, the width is 60 in (152 cm).

### Space requirements

Adequate work space must be provided to allow normal operation, proper

# New Equipment Warranty

*United States and Canada*

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Kodak warrants this equipment to function properly for three months from date of initial installation, when installed within one year from date of shipment. This warranty covers the purchaser of this equipment as well as anyone else who owns it during the warranty period.

## **Warranty repair coverage**

If this equipment does not function properly during the warranty period, Kodak's Technical Assistance Center (TAC) will provide telephone assistance to Customer's designated liaison. When determined necessary by Kodak, a Kodak Field Engineer will perform on-site service to adjust and/or replace parts required to maintain the equipment in an operating condition which is consistent with Kodak's specifications.

## **Days and hours of coverage**

Warranty coverage is available Monday through Friday during Kodak's normal working hours (usually 8:00 a.m. to 5:00 p.m.), excluding holidays celebrated locally. On-site service performed after normal working hours will be billed at prevailing overtime rates.

## **How to obtain service**

Call 1 (800) 822-1414. In order for Kodak to provide assistance, the designated liaison must provide Customer's access code.

## **Customer responsibilities**

1. Designate a knowledgeable System Administrator and one or two trained alternates who will be the only source of liaison with Kodak Service Personnel. Liaison names must be provided to Kodak
2. Provide initial problem-solving assistance to site users.
3. Perform appropriate problem analysis and corrective actions by following troubleshooting instructions and remedial actions as prescribed by Kodak.
4. Perform Customer maintenance and error recovery procedures.
5. Provide immediate access to equipment when service is required.
6. Notify Kodak if equipment is to be physically moved to a different location. Customer is responsible for all costs associated with relocation.

## **Limitations**

Standard warranty service is limited to the contiguous United States, Hawaii, and certain areas of Alaska.

This warranty does not cover: circumstances beyond Kodak's control (such as Customer overriding, bypassing or defeating interlock switches on equipment or devices sold by Kodak); problems due to failure of Customer to conform to Kodak's site specifications; service or parts to correct problems resulting from the use of attachments, accessories or alterations not marketed by Kodak; relocation or service required as the result of relocation; unauthorized modifications or service; misuse; abuse; failure to follow Kodak's operating instructions; or supply items (such as glass and lamps).

**Kodak makes no other warranties, express, implied, or of merchantability or fitness for a particular purpose for this equipment.**

Repair or replacement without charge are Kodak's only obligations under this warranty. KODAK WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE SALE, USE, OR IMPROPER FUNCTIONING OF THIS EQUIPMENT, REGARDLESS OF THE CAUSE. Such damages for

# New Equipment Warranty

*Europe, Africa, Middle East*

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Providing Revenue for the Equipment was realized in the country of final placement, Kodak will warrant the equipment in terms of manufacturing defects and fitness for use within advertised performance and functionality parameters for a minimum period of Three months, providing the equipment is installed within 1 year of purchase and has not benefited from any previous warranties. The warranty is extended to any person(s) owning the equipment within the three month period.

## **Warranty repair**

Should the need arise to call Kodak Service during the warranty period, Kodak will provide support via their Local Customer Equipment Service Division, either remotely, on-site, or a combination of both, as deemed appropriate by Kodak Technical Personnel. Repair of the system will be to correct manufacturing defects and to maintain performance of the equipment in line with advertised specification and functionality.

## **Days and hours of coverage**

Warranty support is available Monday to Friday 8.30 a.m. to 5.00 p.m., excluding local holidays. Support may be available outside of these hours at local discretion and at local overtime billing rates.

## **How to obtain service**

Contact your local Kodak representative to obtain the telephone number which may be used to contact your local Customer Equipment Services Division.

## **Customer/end user responsibilities**

1. Have a minimum of two trained personnel nominated as the primary point of contact for Kodak Support.
2. Provide initial problem-solving assistance to users and assist Kodak Support in initial problem quantification and analysis.
3. Perform all customer maintenance and error recovery procedures.
4. As problems are identified that require on-site visits, to ensure the equipment is readily available to the support personnel.
5. Equipment movement and relocation will be chargeable at the current local per-call rate.

## **Limitations**

Standard warranty coverage is available within Europe, Africa, and Middle Eastern Region PROVIDING sale revenue is realized within the country of final placement. Equipment placed outside of the country where sale revenue was realized will be offered standard warranty coverage providing the final placement is within one of the following countries: Austria, Belgium, Denmark, Finland, Germany, Greece, Holland, Hungary, Ireland, Italy, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom. Equipment purchased outside of the above countries and placed in any country other than the one where the original purchase was made will be offered support and the current local rate (available from the local Kodak organization), providing support resource for the product exists.

This warranty does not cover circumstances beyond the control of Kodak, including but not limited to; problems associated with the failure to comply with Kodak Site Specifications; problems arising from the use of non-Kodak attachments or accessories; relocation or resultant service; unauthorized modifications or service; misuse; abuse; failure to follow Kodak's operating and use instructions; or any components deemed by Kodak to be consumable items (glass, lamps, etc.).

Kodak makes no other warranties, express, implied, or of merchantability or fitness for a particular purpose for this

## **New Equipment Warranty**

*Asia Pacific Region and Latin America Region*

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The terms and conditions of the new equipment warranty will be provided by the Kodak company in the country in which the sale is finalized, or by a Kodak-appointed distributor in those countries where Kodak does not have direct sales representation.

# Service Agreement Terms

*United States and Canada*

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## **Service agreement availability**

Standard agreement service is available within the contiguous United States, Hawaii and certain areas of Alaska. Service agreements purchased at the time of equipment sale become effective the day after warranty expiration. Service agreements may be purchased at a later date, provided the equipment is in proper operating condition.

Kodak agrees to perform the following service for a time period of one year, unless otherwise specified.

## **Service agreement coverage**

During the term of this agreement, Kodak's Technical Assistance Center (TAC) will provide telephone assistance to Customer's designated liaison. When determined necessary by Kodak, a Kodak Field Engineer will perform on-site service to adjust and/or replace parts required to maintain the equipment in an operating condition which is consistent with Kodak's specifications.

When periodic maintenance (PM) is included in the agreement, Kodak will perform the specified number of calls to clean, test, and maintain the equipment in proper working order. When possible, PMs will be performed at the same time as repair service.

## **How to obtain service**

Call 1 (800) 822-1414. In order for Kodak to provide assistance, Customer's access code (Customer Identification Number) must be provided to Kodak.

## **Days and hours of coverage**

Unless premier (extended hours) coverage is purchased, this agreement covers service during Kodak's normal working hours (usually 8:00 a.m. to 5:00 p.m. local time) Monday through Friday, excluding Kodak holidays.

On-site service will be available outside Kodak's normal working hours at prevailing overtime rates.

## **Limitations**

This agreement does not cover: circumstances beyond Kodak's control; problems due to failure of Customer to conform to Kodak's site specifications; rebuilding or reconditioning of equipment; service or parts required to correct problems resulting from the use of attachments, accessories or alterations not marketed by Kodak; relocation of equipment or service required as the result of relocation; unauthorized modifications or service; misuse; abuse; supply items; or failure to follow Kodak's operating instructions.

The services outlined in these terms are Kodak's only obligation under this agreement. KODAK WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE SALE, USE, OR IMPROPER FUNCTIONING OF THIS EQUIPMENT, REGARDLESS OF THE CAUSE. Such damages for which Kodak will not be responsible, include, but are not limited to, loss of revenue or profit, loss of data, downtime costs, loss of use of the equipment, cost of any substitute equipment, facilities or services or claims of your customers for such damages.

This limitation of liability will not apply to claims for injury to persons or damage to property caused by the sole negligence or fault of Kodak or by persons under its direction or control.

## **On-site response time**

When the Plus-2 (guaranteed 2-hour response) is purchased, Kodak will provide on-site service within two hours. If the 2-hour response time is not met, credit will be provided as follows:

At completion of the agreement, and upon written request, Kodak will credit Customer one percent of applicable agreement price time the number of calls for which response time was not met. Such credit will not exceed the premium paid for guaranteed response on the machine to which the credits apply.

#### **Customer responsibilities**

1. Designate a knowledgeable System Administrator and one or two trained alternates who will be the only source of liaison with Kodak Service Personnel. Liaison names must be provided to Kodak.
2. Provide initial problem-solving assistance to site users.
3. Perform appropriate problem analysis and corrective actions by following troubleshooting instructions and remedial actions as prescribed by Kodak.
4. Perform customer maintenance and error recovery procedures.
5. Provide immediate access to equipment when service is required.
6. Notify Kodak if equipment is to be physically moved to a different location. Customer is responsible for all costs associated with relocation.

NOTE: Failure to meet these responsibilities may result in additional charges at the prevailing per-call rates.

#### **Renewal**

Kodak will provide for renewal, at the prices and terms then in effect, as long as a service agreement is available.

#### **Cancellation**

Service agreements may be canceled by either Customer or Kodak upon 30 days' written notice. Kodak will issue a prorated credit for any remaining prepaid agreement coverage. Customer will be charged for any service provided when equipment is not covered by a service agreement.

#### **Billing and terms of payment**

Billing is in advance and prices will vary dependent upon billing arrangements (annual, quarterly or monthly). Payment terms are net 30 except for renewals, which are due by the renewal date.

#### **Assignment**

Customer shall not assign its rights under this agreement without the prior written consent of Kodak. Such consent will not be unreasonably withheld.



# Service Agreement Terms

*Europe, Africa, Middle East*

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## **Service agreement availability**

Standard Service Agreements are available across the European, African and Middle Eastern region where a support resource currently exists or there are plans to establish the appropriate support infrastructure if a mutual agreement is reached between the customer and the local Kodak organization, based upon a business case analysis. Service Agreements may be purchased at any time during the useful life of a product; however, an inspection may be necessary if the sale of the S/A does not occur immediately following warranty or a previous S/A expiration.

## **Service agreement coverage**

During the term of the Service Agreement, Kodak will provide support via their Customer Equipment Service Division, either remotely, on-site or a combination of both, as deemed appropriate by Kodak Technical personnel. Repair of the system will be to maintain performance of the equipment in line with advertised specification and functionality.

## **Days and hours of coverage**

Service Agreement support is available Monday to Friday 8.30 a.m. to 5.00 p.m., excluding local holidays. Support may be available outside of these hours at local discretion and at a premium to the standard contract.

## **Limitations**

This Service Agreement does not cover circumstances beyond the control of Kodak, including but not limited to; problems associated with the failure to comply with Kodak Site Specifications; problems arising from the use of non-Kodak attachments or accessories; relocation or resultant service; unauthorized modifications or service; misuse; abuse; failure to follow Kodak's operating and use instructions; or any components deemed by Kodak to be consumable items (glass, lamps, etc.).

The services outlined in this document are Kodak's only obligation under the terms of any agreement. Kodak will not be responsible for any consequential or incidental loss or damage resulting from the sale, use, or improper function of this equipment, regardless of the cause. Such damages may include but are not limited to, loss of revenue, loss of use of equipment, cost of any substitute equipment, facilities, services, or claims by your customers for such damages.

## **Response times**

Kodak's objective is to provide on-site service within the following timeframes: Specific country detail will be supplied locally and may vary from the guidelines presented below.

<b>Distance From Support Resource</b>	<b>Within Contract Hours</b>	<b>Outside Contract Hours</b>
0-50 Km	4 hours	Best Effort
50-100 Km	8 hours	Best Effort
Over 100 Km	16 hours	Best Effort

Enhanced hours of coverage, guaranteed response times, and improved response times may be available within individual countries or specific geographic locations at the discretion of local Service management.

**Customer responsibilities**

1. Have a minimum of Two trained personnel nominated as the primary point of contact for Kodak Support.
2. Provide initial problem solving assistance to users and assist Kodak Support in initial problem quantification and analysis.
3. Perform all customer maintenance and error recovery procedures.
4. As problems are identified that require on-site visits, to ensure the equipment is readily available to the support personnel.
5. Equipment movement and relocation will be chargeable at the current local per-call rate.

Failure to meet these responsibilities and any resultant service calls may be charged at the prevailing local per-call rate.

**Renewal**

Generally these will be available annually, providing Service Agreement support continues to be available.

**Cancellation**

Terms will be country specific.

**Billing of terms and payment**

Terms will be country specific.

This document is prepared for guidance only and is general in nature. Country specific arrangements for support including, but not limited to Service Agreement cost, Warranty duration, per-call cost, availability of support and hours of coverage must be confirmed with the local Customer Equipment Service Division.

## **Service Agreement Terms** *Asia Pacific Region and Latin America Region*

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The service agreement terms will be provided by the Kodak company in the country in which the sale is finalized.

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