COOLSCAN IV ED (LS-40 ED)

Nikon Corporation is pleased to announce the introduction of its new scanner - the COOLSCAN IV ED.

Developed as a general-use film scanner within the new COOLSCAN series, it enables 35mm / IX240 film scanning at true 2,900-dpi optical resolution. Its 12-bit A / D conversion input and 16-bit output deliver accurate color reproduction. What's more, it offers high-speed scanning (approx. 42 sec. from image transfer to display) at 2,900 dpi.

The COOLSCAN IV ED frees photographers from time-consuming film management such as sorting, arranging and storing of film, and offers easy access to the exciting world of digital images.

For the film scanner novice, the new COOLSCAN IV ED acts as a "film's digital bridge", enabling scanning of higher quality than that of a flatbed scanner capable of "transillumination". It can even restore faded or orange-tinged discolored negative film to true, brilliant color, previously a difficult process for beginners.

The COOLSCAN IV ED's superior image quality is supported by an advanced SCANNER NIKKOR ED lens with reduced chromatic aberration and minimized image distortion, newly developed custom CCD for clear resolution, and a new Setup function featuring intelligent tone and color auto-correction. In addition, gentler-on-film LED illumination ensures consistently accurate color reproduction.

Furthermore, the new digital image correction function Digital ICE³™ (cubed)* resolves defects such as film surface dust and scratches, faded color, mold and grain, that cannot be corrected with ordinary scanners. Digital ICE³™ comprises Digital ICE™ (Image Correction & Enhancement), Digital ROC™ (Reconstruction of Colors), and Digital GEM™ (Grain Equalization & Management).

For easy connection with a computer, commonly used USB interface is adopted.

*Developed by Applied Science Fiction Inc.

Main Features

- 2,900 dpi true optical resolution scanning, 12-bit A/D converter incorporating 16-/8-bit output for vivid images
- Exclusive SCANNER NIKKOR ED high-resolution/high-performance optics (7 elements in 4 groups including 3 ED glass elements) for reduced color aberration and minimized image distortion
- Newly developed custom CCD reduces image noise, and provides clear resolution
- Proprietary LED technology ensures consistently accurate color reproduction

- Fast 42-sec. scanning at 2,900 dpi (including image transfer to display)
- New setup function for color negative film, featuring intelligent tone and color auto-correction, enables fine reproduction of orange-tinged negative film
- Quick AF & Quick Preview
- Various film formats (35mm [135], IX240, etc.)
- Easy-to-connect USB interface
- Improved Color Management System accuracy
- Digital ICE³™ automatic digital image correction function
    1. Digital ICE™ (Image Correction & Enhancement), a refined version of the function known as "CleanImage" in the earlier LS-2000 and LS-30, removes dust, scratches and finger prints from scanned images Digital ICE™ applies to color film and color process monochrome film, but is not recommended for use with Kodachrome film.
    2. Digital ROC™ (Reconstruction of Color) restores faded images to true, brilliant color by determining ideal color tone for each image.
    3. Digital GEM™ (Grain Equalization & Management) equalizes image grain resulting in a smoother overall image.

Digital ICE³ (Digital ICE cubed) is Digital ICE, Digital ROC and Digital GEM.
Digital ICE³ (Digital ICE cubed), Digital ICE, Digital ROC and Digital GEM are trademarks of Applied Science Fiction Inc.
Digital ICE³ (Digital ICE cubed) are technologies developed by Applied Science Fiction Inc.

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Specifications

Reading system/Optics

Film type	35mm (135)/IX240 film, slide glass for microscope	
Reading resolution	2,900 dpi	
Film adapters and holders	STRIP FILM ADAPTER SA-21 (2 to 6 frames) SLIDE MOUNT ADAPTER MA-20(S) STRIP FILM HOLDER FH-3 (1 to 6 frames) IX240 FILM ADAPTER IA-20(S) (15/25/40 frames) (optional) MEDICAL SLIDE HOLDER FH-G1 (for slide glass) (optional)	
Scanning area (max.)	25.1 x 38.0mm (2,870 x 4,332 pixels)	
Effective area (Size/Pixels)	SA-21	23.3 x 36.0mm (2,657 x 4,104)
	MA-20(S)	25.1 x 36.8mm* (2,870 x 4,203)
	FH-3	24.0 x 36.0mm (2,736 x 4,104)
	IA-20(S)	16.1 x 26.9mm (1,836 x 3,067)
	FH-G1	22.9 x 35.0mm (2,610 x 3,989)
Illumination method	R, G, B, and D-LED array	
Imaging optics	SCANNER NIKKOR ED lens (7 elements in 4 groups including 3 ED glass elements)	
Focusing	Autofocus and Manual focus	

Scanning/Signal processing

Scan time	Approx. 42 sec. at 2,900 dpi (35mm), 8-bit output (typical scan time with display, Windows, CMS off)
Density range	3.6
Thumbnail scanning and batch scanning	35mm (135) strip film: 2 to 6 frames IX240 film cartridge: 15/25/40 frames (optional)
A/D conversion	12bits
Output data	16 bits, 8 bits per color channel (user selectable)
Digital ICE³™	Digital ICE™, Digital ROC™, Digital GEM™
Color Management System	Built-in

Data transfer

Interface	USB 1.1

Operating conditions

Power requirements	100˜240VAC, 0.3˜0.2A, 50/60Hz
Environmental conditions	Temperature: 10º˜35ºC (50º˜95ºF) Relative humidity: 20˜60% RH (non-condensing)
Dimensions (W x H x D)	93 x 169 x 315mm (3.7 x 6.6 x 12.4 in.)
Weight	Approx. 3kg (6.6 lbs.)

Others**

Accessories included	SLIDE MOUNT ADAPTER MA-20(S), STRIP FILM ADAPTER SA-21, STRIP FILM HOLDER FH-3, USB cable, Nikon Scan 3 Driver Software, AC power cord, Manual
Bundled software	Photoshop 5.0 LE (Adobe Systems Inc.)

*Actual effective size depends on slide mount aperture size.
**Accessories and software may differ depending on country or region.

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer.

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