

**FUJIFILM**  
OFFICIAL IMAGING SPONSOR



DIGITAL MINILAB  
**Frontier 390**

**New**



# Outstanding flexibility and ample capacity for today's digital imaging demands.

Today's customers are seeking a wider range of imaging services than ever before — using conventional films, digital still cameras and every type of computer-manipulated image. Fujifilm's Digital Minilab Frontier 390 was designed to answer these needs, with extra-large capacity and fast throughput, simple and flexible operation, and the superior level of image quality you've come to expect from Fujifilm. Built around advanced CCD line scanner and solid-state laser exposure systems and sophisticated image-enhancement technologies, the Frontier represents the evolution of proven silver-halide technology in a totally integrated digital setting. With the Frontier 390, you and your customers can now take advantage of the quality, expandability and capacity that this new digital world has to offer.

High speed

Expandability

Simple operation

Digital technology

True digital quality

High speed

High capacity

## High speed and high capacity

Besides remarkably high print quality, you'll also enjoy extraordinary speed and capacity — up to approx. **1,900prints/hr** in semi-automatic mode and **2,300prints/hr** in automatic mode with NF2500AG. The optional **Automatic Film Feeder NF2500AG** lets you feed up to twenty 135-size negatives into the scanner at one time.

## Advanced Digital Technology

The state-of-the-art **3-line CCD** scanning unit combines with sophisticated **image-enhancement technology** and a proprietary **solid-state laser exposure system** to achieve **remarkable print quality**.

## Expandability

Offer your customers high-quality prints from **digital sources**, either digital cameras or computer-created images on digital media. An exciting selection of **print formats**, appealing **special-effects** processes, and **customized services** are also available.

## Simple Operation

The exclusive **one-channel print system** simplifies operation by eliminating the need for manual channel selection and film-speed adjustment, and the **one-touch chemical replenishment system** is a single-cartridge chemical for clean, fast, and error-free replenishment tasks.

# True Digital Quality with Speed



Frontier 390

8  
20  
2300

## High speed and high capacity to maximize your investment.

The Frontier 390 has been engineered to provide maximum speed and throughput. Many of the operations are automatic and simple, so you can provide less waiting and faster processing.

Maximize your investment with superior production capacity.

## 2,300-print-per-hour\* processing capacity

The Frontier 390 delivers an impressive 2,300 prints per hour\* in automatic mode with the Automatic Film Feeder. Even with semi-automatic mode, it reaches a capacity of approximately 1,900 prints per hour.

\* For 135 negatives; print size 4R; 152mm-width paper, using optional Auto Film Feeder.



135 film	3R size/4R size	2,300 prints/hr (automatic mode with NF2500AG) 2,100 prints/hr (automatic mode without NF2500AG) 1,900 prints/hr (semi-automatic mode)
	4R double print	2,440 prints/hr
IX240 film	4 inch size (C/H/P/Indexprint)	55 films/hr (automatic mode)



## 20-roll automatic film feeder

The new, productivity-enhancing Automatic Film Feeder NF2500AG option lets you load up to twenty rolls of 135 negative film all at once, making processing operations faster and easier.

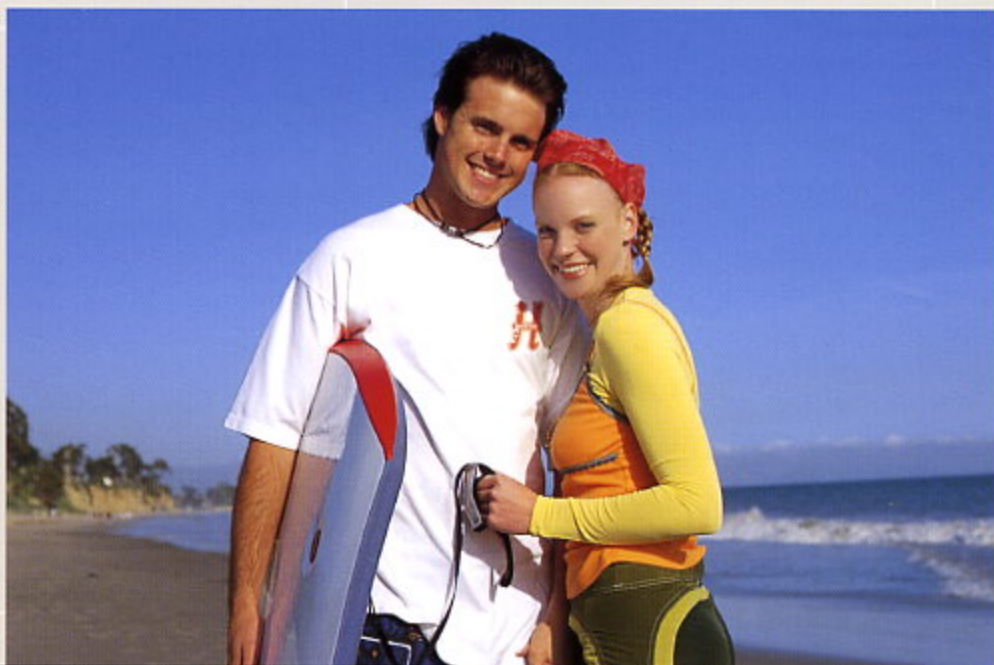


## 25-order auto sorter

Another efficiency-boosting feature is the Frontier's automatic sorting system, a standard accessory. Prints for 25 different orders are sorted and stacked for easy filing and delivery. (Prints width larger than 152mm or lengths longer than 254mm are fed into a large-sized tray for separate handling.)

## 8-inch-wide print size

The Frontier produces prints in a variety of popular sizes, up to 8RW (8 x 12 inches), including 3R/4R and A4 sizes. Paper supply is by roll paper, up to 8 inches in width.



# 5000

Reap the benefits of  
advanced digital technology.

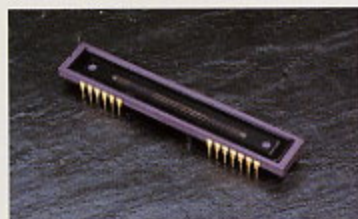
# 300



## Fujifilm's digital technology makes a real difference in image quality.

Sophisticated image-processing and image-enhancement technologies harness digital technology to optimize each photo image, automatically compensating for less-than-ideal shooting conditions. The result is a visible difference in the photos you produce, with fewer rejected prints and more satisfied customers.

### 5000-pixel high-speed CCD line scanner



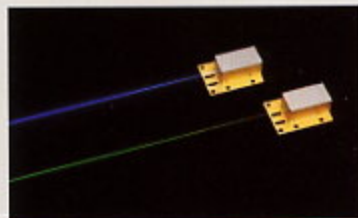
Fujifilm's unique scanning system is built around a high-performance CCD that reads three colors simultaneously. Images are scanned from film and are rapidly converted to high-

precision digital format with no loss of image data, to bring out all the fine details in a photograph.

### Digital image enhancement and image correction technology

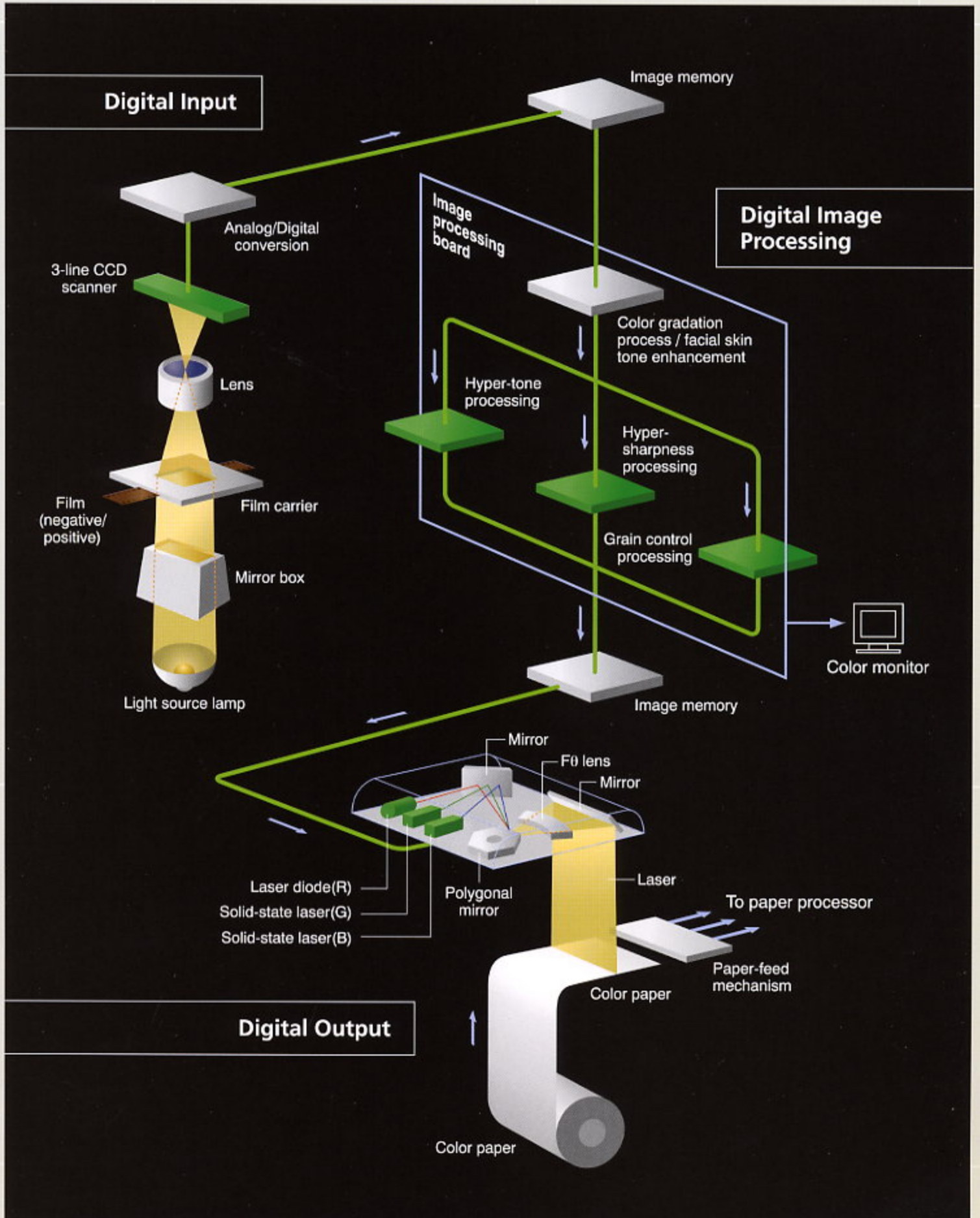
The Frontier 390 performs high-speed image adjustment and automated corrections that would be impossible without digital technology — everything from the suppression of grainy appearance to the enhancement of facial expressions. Image treatment data can be set automatically to give you optimal print quality from almost any type of film.

### 300-dpi high-resolution, solid-state laser exposure system



Fujifilm's exclusive laser exposure system delivers sharp, vivid prints with accurate color rendition. Greatly superior to ordinary CRT exposure systems, the laser system gives you

smooth, even gradations that are characteristic of a single light source.



Take advantage of unparalleled versatility.

# Numerous

## Input sources

### Conventional film



IX 240 film



135 slide film



135 negatives



120/220 negatives



110 negatives

### Digital still cameras



Digital still camera

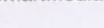
#### CompactFlash



#### PC card



#### SmartMedia



### Digital media



Floppy disk



MO disk

### Optional software

Variety print service software (Standard/Template)



## Frontier 390

PC card reader

Hub

Removable media drive

Router

Internet

## Output sources

### Standard service

C format



H format



P format



8" x 10" prints



IX240 index prints



135 index prints

### Variety print service



Frame prints



Prints with text

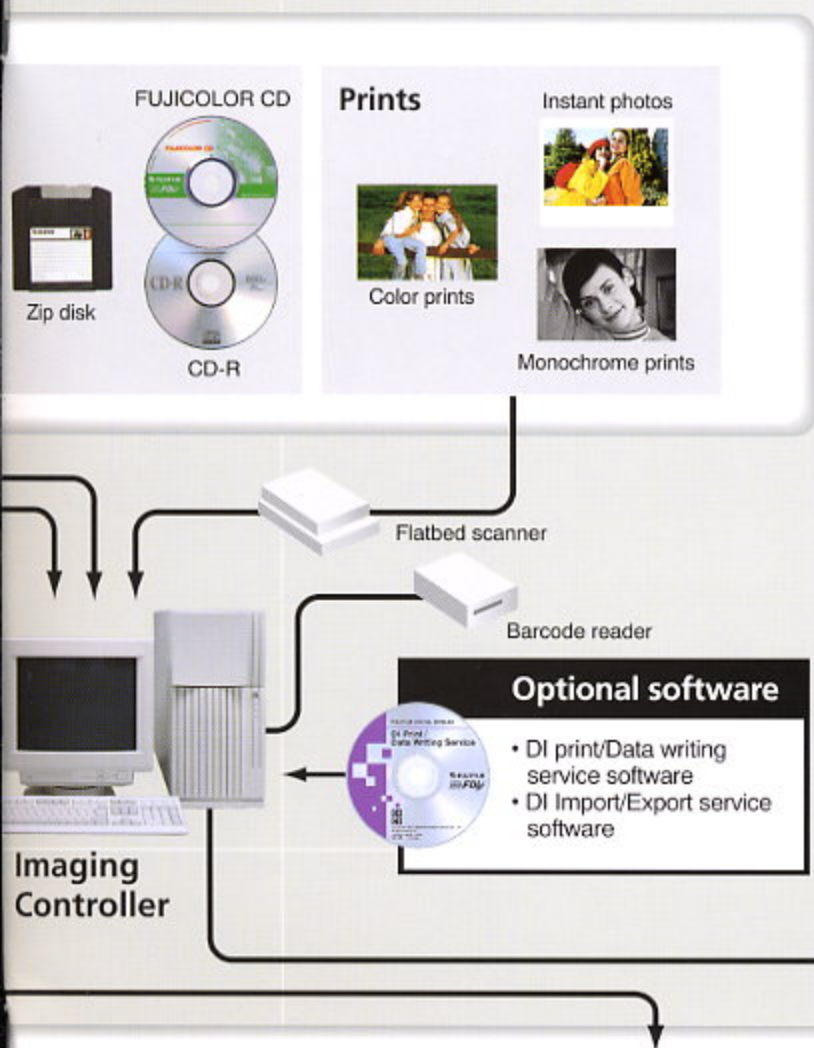


Album prints



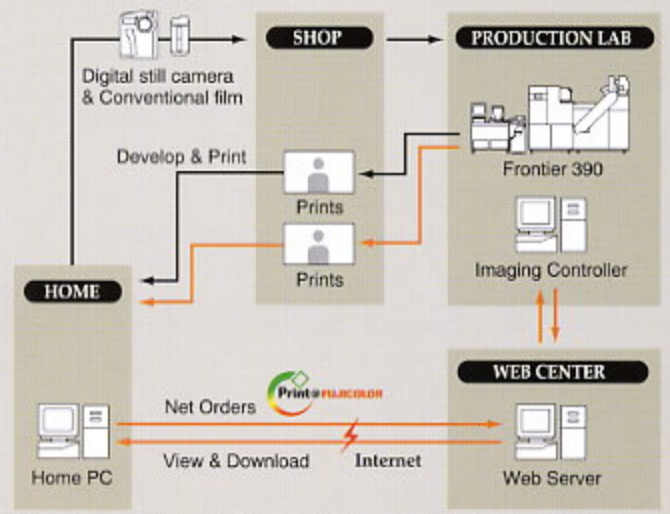
# Versatile print formats and input/output configurations to satisfy your customers' changing needs.

Whether they use conventional film or digital media, whether they order standard sizes or special formats, your customers will appreciate the fact that you're ready to handle all their photo-processing needs, and you'll appreciate just how easy it is to offer them the services they're looking for.



## Fujifilm Network Service

Taking advantage of the Frontier 390's full-digital characteristics, Fujifilm Network Service offers convenient and very appealing services that allow customers in their homes to view their processed photos, download digitized versions and order reprints, all via the Internet.



*This service may not be available in some locations, and details of services offered may vary.*

Greeting card prints  
Memory copy print  
Calendar prints  
ID Photo (2up/4up)

### DI print service

Digital still camera prints  
Digital media prints

### DI data writing service

FUJICOLOR CD  
CD-R  
Index prints  
Floppy disk  
MO disk  
Zip disk



## Standard software

The Frontier 390 comes with a comprehensive standard package of image-processing software to smartly compensate for difficult lighting situations, enhance photo sharpness, and provide certain specialized services such as monochrome printing.

### Offer a wide variety of standard print sizes

The Frontier outputs prints and reprints in a whole range of popular sizes and formats. Prints can be magnified and cropped, letting you offer special customized services with minimal effort. In addition, monochrome (either black-and-white or sepia) printing functionality comes with the standard package — either from monochrome film or from color film.



C format

H format



P format



Advanced Photo System  
index prints (IX240)



135 index prints



8" x 10" prints

### Convenient image-correction software features

#### Backlight correction

The Frontier performs image density adjustment independently for both foreground and background areas, so it's able to compensate for strongly backlit scenes automatically.



Backlight correction



#### Sharpness adjustment

Fujifilm's HyperSharpness process improves the edge definition of objects, shadows and colors, while compensating for film grain, to produce crisp, clear photos that look as if they were taken with a higher grade of camera.



Sharpness adjustment



#### High-contrast correction

When a overly intense flash leaves the subject too bright and the background too dark, the Frontier automatically adjusts both the subject and the background to achieve smoother gradations and more vivid and natural-looking colors.



High-contrast correction



#### Over/under-exposure control

When over- or under-exposed negatives are detected, density and contrast are automatically adjusted to bring images closer to their proper exposure level.

#### Facial enhancement feature

This feature searches for people's faces in a photo and creates a more natural appearance, enhancing facial expressions and compensating for shadows.



## Optional Software

# Variety Print Service Software

Standard

The software included in this package takes advantage of the Frontier's sophisticated digital image-processing capabilities, making it easy to create alternate print finishes and special effects like cross filter and soft focus.



### Red-eye compensation

Eyes that appear red in a flash photograph can be easily corrected with this feature. Red-eye appearance displayed on the monitor is automatically corrected when selected using the mouse, and manual retouching is also possible.



### Soft-focus

This feature softens the tone of a print, to create an elegant effect.



### Cross-filter

This is used to place a 45-degree cross of light on any point on the photo to highlight a particular spot and create a bright mood. Making a light cross brighter also increases the area it covers; light crosses can be manually added and removed.



### Cross-filter/soft-focus

This combines the cross-filter and soft-focus effects, adding crosses of light and softening the focus at the same time.



### Free cropping

Custom cropping can be performed, and the film images can be moved up, down, to the right or left, revolved, and/or magnified.



## Optional Software

# Variety Print Service Software

Templates Vol. 1 and Vol. 2

This template software collection includes an eye-catching range of print formats designed to appeal to your customers and bring in extra orders. Everything from ID photos to customized photo greeting cards and calendars.



### Prints with text

Any sort of text can be inserted into text boxes of various designs. Vertical text and multiple lines are supported, and the position of the text box can be adjusted. Various fonts and printing colors are available.



### Frame prints

Attractive ornamental frames of various designs can be chosen to surround a single image.

### Memory copy prints

These are prints that support the addition of text to a set area at the bottom or right of a frame, to commemorate a special event or occasion. Text size, font and color may be chosen from available options.



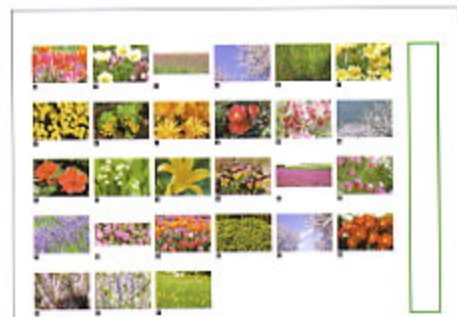
### Large index prints

These are easy-to-see, larger-than-standard-size index prints of the frames on one roll of film, printed on 8" x 10", A4, or A4 letter paper. Frame numbers are printed next to each frame.



### Greeting card prints

These are custom greeting cards made from a single frame, with a choice of artwork.





### Calendar prints

Six-month and one-year calendar prints, featuring a single frame, can be produced with this template. Numerous styles and sizes are available.



### Album prints

Prints of multiple frames of a common size are arranged on a 8" x 10", or A4 sheet for an album-like effect. Various configurations are available: three, six, nine or fifteen frames per print.



### Package prints

This template produces a "package" of multiple copies of a chosen frame at different magnifications on a 8" x 10" sheet. A variety of configurations are available.



### ID photos

These templates produce sets of two or four prints of the same frame and size, for use as ID photos.



### Custom template editing

Easy-to-use software is also available that allows you to design your own custom templates, with your own choice of background colors and graphics, text and text format, photo image size and other configurations.

### Card prints

With this template, eight prints of a single frame (in card size) are arranged on a 8" x 10" or ten prints on a A4 size sheet.



## DI Controller Optional Software DI Print/Data Writing Service Software

The features in this package assure that you'll be ready to offer all the print services your customers will be asking for - creating prints from digital still cameras, from digital media and from other prints, and storing digital image data on various media.

### DI Print Service

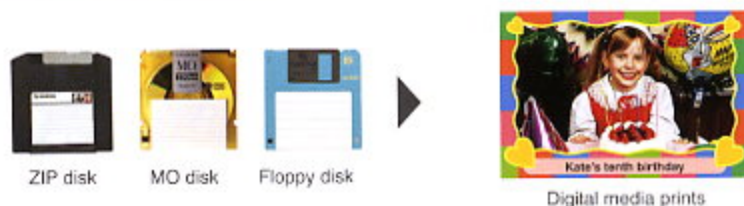
#### Digital Still Camera Print Service

This service allows you to process digital still camera images from a variety of file formats. Image data can be input directly from a camera or from several types of storage media.



#### Media Print Service

This lets you read, then print, digital images that were created or manipulated by image-processing software such as Adobe Photoshop; the software can read data in various file formats.



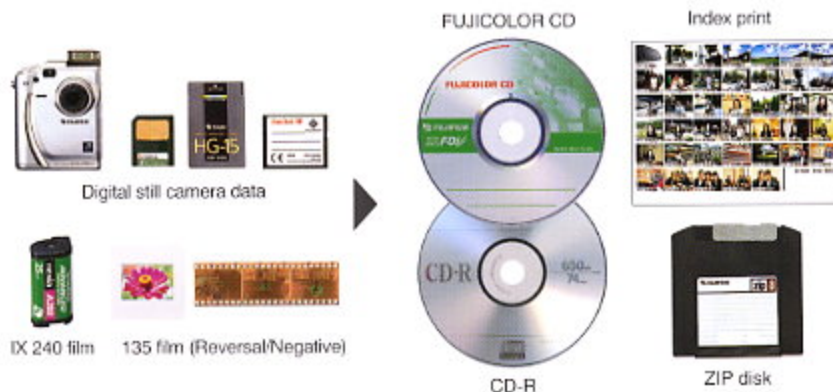
#### Print to Print Service

With this service, you can use an external scanner connected to the Imaging Controller to scan in prints, then create new prints.



### DI Data Writing Service

Transfer high-resolution image data from 135 or IX240 film onto CD-R/Jaz/Zip media. (Note that additional images may be added to a partially filled CD-R that was originally made by the Frontier Data Writing Service.)



## DI Controller Optional Software DI File Import/Export Service Software

The data import and export features in this package will expand the functionality and flexibility of your Imaging Controller.

#### Import Service

This feature makes prints of computer-manipulated images from Adobe Photoshop™ and other software directly from the Imaging Controller, without going through the regular printing system.

#### Export Service

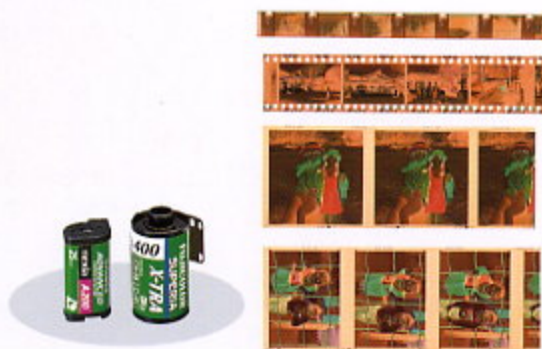
This feature converts film images that were scanned into the Frontier into BMP format, then sends them to the Imaging Controller for storage and later use.

# Simplified operation means high-quality prints with minimal effort and training

The Frontier 390 system was designed to make every aspect of production as automatic and straightforward as possible, so that anyone can create optimally processed, beautifully realized prints without complicated procedures or special training.

## Perfect one-channel print system

The Frontier's advanced one-channel print system detects the film size and type automatically, controlling all processing and eliminating the need for tedious manual selection or adjustment steps by the operator.



## Simple interface

The combination of a display monitor and an intuitively easy interface means that even inexperienced operators can begin using the Frontier 390 immediately, without a lot of time-consuming study or training. Up to six prints can be displayed on-screen at once, making it easier to check color balance.



## One-touch chemical replenishment

Fujifilm's compact single-cartridge system makes the process of chemical replenishment clean, simple, and virtually error-free. Cartridge contents never come in contact with the operator's hands because all mixing is automatic: the minilab draws chemicals as required, mixes them, and even washes out the containers when they're empty. The system is also environmentally friendly, with compact recyclable containers, reduced effluent, and reduced replenishing requirements.



CP-48S



## Automatic film carriers

The Frontier 390 handles four different film carriers, all of them designed to simplify the process of film loading and processing. The NC240AG carrier, tailored specifically for Advanced Photo System film, reads the format of each frame of a roll of film for automatic "one-pass" processing. There's also the NC135AG carrier for 135 film, the SC135Y carrier for mounted reversal film, and the versatile Multi-film carrier model, a newly designed carrier that handles 110, 126, 135, IX240, 120/220 and mounted reversal films.



\* The SC135Y will soon be available

# Fujifilm Digital Minilab Frontier 390 Specifications

## Input unit

### SCANNER & IMAGE PROCESSOR Frontier 390 (SP-2500)

<p>Scanning section: Film carriers:</p>	<p>3-line CCD; scanning of transported film.  <ul style="list-style-type: none"> <li>• 135 automatic negative carrier NC135AG (standard); 135F/P/Hv, 135 H, strips/piece (accepts sepia and black-and-white films).</li> <li>• Automatic negative carrier NC240AG for Advanced Photo System (IX240) film (standard); Advanced Photo System (IX240) C/H/P color negative cartridge/piece (accepts sepia and positive films).</li> <li>• Multi-film carrier MFC10Y (optional) 110, Advanced Photo System (IX240), 135, 126, 120, 220 (6 x 4.5, 6 x 6, 6 x 7, 6 x 8, 6 x 9) color negatives/strips/piece; color positives/strips/piece/mounting (accepts sepia and black-and-white films).</li> <li>• Reversal Mount Auto carrier SC135Y</li> </ul> </p>	<p>Image processing:</p>	<p>Optimal color reproduction processing, color gradation control, hyper-sharpness processing, hyper-tone processing, soft focus, facial expression enhancement, monotone finishing, red-eye correction processing, and others.</p>
		<p>Display:</p>	<p>15-inch CRT color display Multi-frame display capability (standard 6-frame display, can be set to display single frame or six frames).</p>
		<p>Power requirements:</p>	<p>AC200-240V (50/60Hz) 10A, 2.4KVA</p>
		<p>Dimensions:</p>	<p>936 (W) x 815 (D) x 1,238 (H) mm</p>
		<p>Weight:</p>	<p>Approx. 146kg</p>
		<p>Installation space:</p>	<p>Approx. 0.76 m<sup>2</sup></p>

## Output unit

### LASER PRINTER/PAPER PROCESSOR Frontier 390 (LP-2500P)

<p>Type:</p>	<p>Floor-type, normal-light operation (laser printer, processor, cutter, sorter in one unit).</p>	<p>Processor capacity:</p>	<ul style="list-style-type: none"> <li>• 135: 3R/ 89 x 127 mm: Approx 2,780. prints/hr. (using 127 mm width paper)</li> <li>4R/ 102 x 152 mm: Approx. 2,440 prints/hr. (using 152 mm width paper)</li> <li>• Advanced Photo System (IX240): 55 rolls/hr. (3R C/H/P-mixed-format prints; 25 exp. roll and index print), (using 89 mm width paper).</li> <li>• Digital still camera prints: 550 prints/hr. (DSC print size; prints from PC card and SmartMedia™).</li> <li>• Media Prints: 550 prints/hr. (printed from Zip™ or MO disk).</li> </ul>
<p>Exposure system:</p>	<p>Scanning exposure system using RGB lasers (solid-state G and B lasers).</p>	<p>Printable films:</p>	<p>Color negative film: Advanced Photo System (IX240) and 135 (standard); 110, 126, 120, 220: optional; Color positive film: 135 strips, piece and mounting (optional); Advanced Photo System: cartridge and piece (standard); mounting (optional) 120, 220 (optional), sepia (Advanced Photo System)/135 black and white film (standard).</p>
<p>Paper magazines: Paper: Paper widths:</p>	<p>Single paper magazine (standard accessory). FUJICOLOR paper (silver-halide). 8.9, 9.5, 10.2, 11.7, 12.0, 12.7, 13.0, 15.2, 16.5, 17.8, 20.3, 21.0 cm.</p>	<p>Print sizes:</p>	<p>82.5 x 117 mm — 203 x 305 mm.</p>
<p>Back printing: Front printing:</p>	<p>Two 40-character lines in Backside print of information. Time and date of photograph in black characters in lower-right corner on prints from Advanced Photo System (IX240) cartridge film.</p>	<p>Acceptable digital media:</p>	<p>Through external personal computer, prints from floppy disk, ZIP™ disk, CD-R, MO disk, digital still cameras (selected format), Smart Media, PC Card, Compact Flash™, and recommended scanners are available.</p>
<p>Index print:</p>	<p>Color index print and normal prints can be printed from Advanced Photo System/135 (negative, positive, black and white) film in one pass (by RGB laser exposure).</p>	<p>Processing chemicals:</p>	<p>New chemical system CP-48S.</p>
<p>Printer sorter: Printer condition setup: Processor carriage: Processing time: Power requirements:</p>	<p>Sorting capacity: 25 orders. Semi-automatic calibration by AD100 calibrator. Roll processing. Dry to dry: 4 min. AC200-240V (50/60Hz) Single-phase 32A, Three-phase three-wire 24A. Three-phase four-wire 15A.</p>		
<p>Dimensions: Weight: Installation space:</p>	<p>2,564 (W) x 990 (D) x 1,920 (H) mm. Approx. 800kg (1,050kg during actual operation). Approx. 2.50 m<sup>2</sup>.</p>		

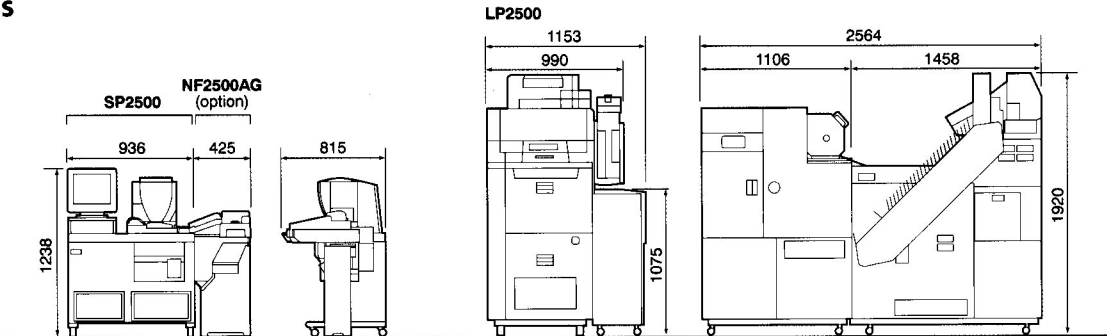
Specifications are subject to change without notice.  
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The Frontier 390 has received the UL/CUL/CE Marks for meeting high safety standards.

## Dimensions

Unit: mm



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26-30, NISHIAZABU 2-CHOME, MINATO-KU, TOKYO 106-8620, JAPAN