

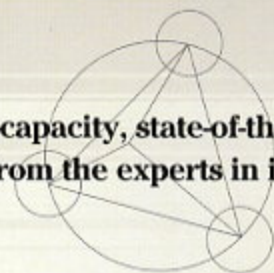
 **FUJIFILM**
OFFICIAL IMAGING SPONSOR



DIGITAL MINILAB
Frontier 350/370



The high-capacity, state-of-the-art digital minilab from the experts in image quality.



DIGITAL MINILAB
Frontier
370

Putting digital technology to work.

Conventional film, digital still cameras, computer-manipulated digital images – the range of choices is wider than ever as the photography world evolves toward a digital future. But one thing has remained constant – the demand for quality. Fujifilm's Digital Minilab Frontier 350/370 is a natural fit for this new world, representing a fusion of the best of silver halide and digital technologies. It's built around a revolutionary CCD line scanner, a full toolbox of proprietary image-enhancement technologies and a sophisticated laser exposure system, all working together to achieve remarkable levels of image quality. With the Frontier 350/370, your customers can enjoy the extraordinary benefits that this new digital world has to offer.



Frontier 350

True digital quality

True digital

Advanced Digital Technology

Remarkable print quality

A state-of-the-art 3-line CCD scanning unit, complemented by sophisticated image-enhancement technology and a proprietary laser exposure system to exploit the full potential of the digital domain.

Simple Operation

Perfect one-channel print system

An exclusive one-channel print system, simplifying operation by eliminating the need for manual channel selection and film speed adjustment.

Fully automatic double paper magazine

Two built-in paper magazines to allow easy paper-size change, with easy auto selection.

One-touch chemical replenishment

A new single-cartridge chemical system that makes replenishment procedures clean, fast, and error-free.

High capacity, high speed

In addition to their remarkably high quality, the Frontier 350 and 370 also deliver extremely high-capacity processing.

	3R-size print	4R-size print
Frontier 370	Approx. 1,550 prints/h	Approx. 1,450 prints/h
Frontier 350	Approx. 1,300 prints/h	Approx. 1,050 prints/h

(Results according to tests conducted by Fujifilm; results may vary under actual production conditions.)

Expandability

Top-quality prints from digital sources

Beautiful print production from either digital cameras or computer-created images stored on digital media.

Exciting new print services

A selection of formats, special-effects processes and customized services that let you offer customers a variety of appealing products.

True digital quality
digital quality
digital quality
al quality



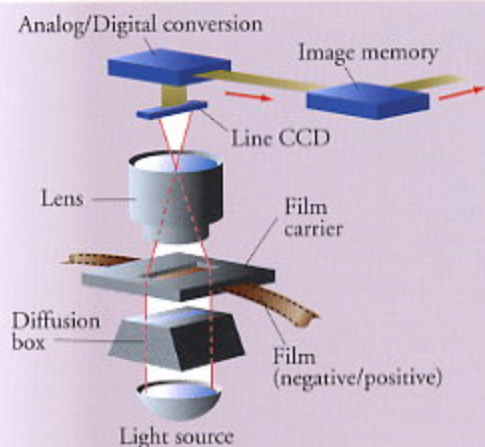
Frontier 370
(with optional 25-order sorter)



Digital imaging technology makes a real difference in quality.

Fujifilm's advanced image-enhancement and digital processing technologies make a visible difference in the prints you produce, optimizing each image and automatically compensating for less-than-ideal shooting conditions. That means more satisfied customers and fewer rejects and returns.

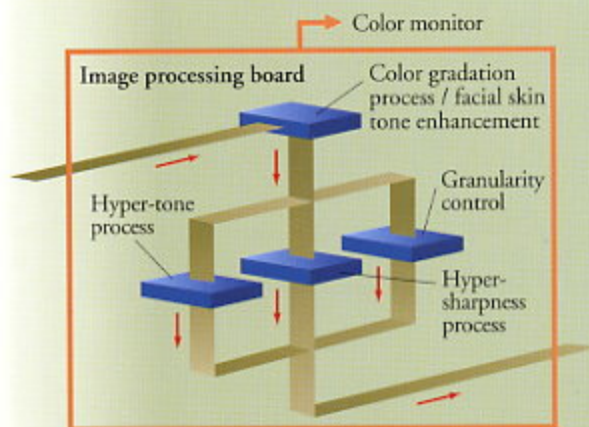
DIGITAL INPUT



An input system that brings out all the fine details in a photograph.

Fujifilm's unique scanning system is built around a high-performance CCD that reads three colors simultaneously. Images are scanned from film (either 135 film, 120/220 film, IX 240 Advanced Photo System or other format) and are rapidly converted to a high-precision digital format with no loss of image quality.

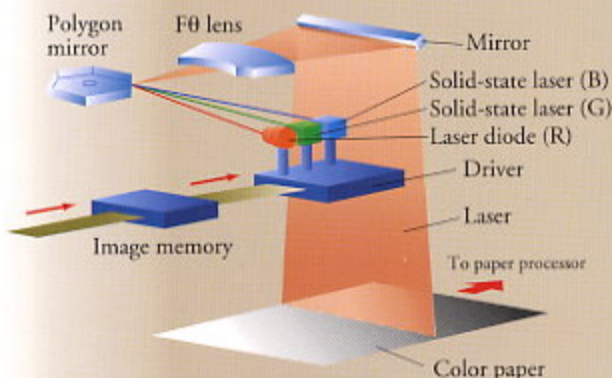
DIGITAL IMAGE PROCESSING



Automated corrections for fewer rejects, and digital image treatment for super-high-definition output.

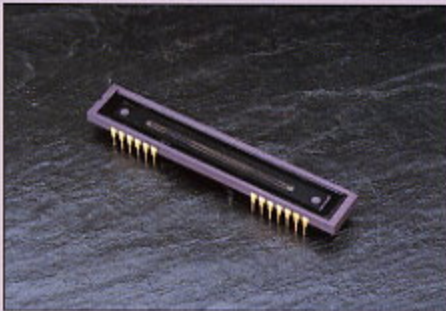
The Frontier 350/370 incorporates image processing functions for high-speed image adjustment that would be impossible without digital technology – everything from the suppression of grainy appearance to the enhancement of facial skin tones. Image adjustment parameters can be set automatically to give you optimal print quality from almost any type of film.

DIGITAL OUTPUT



A unique exposure system that delivers fast, beautiful prints.

Fujifilm's exclusive laser exposure system enables fast, high-quality digital exposures on silver halide photographic paper. Greatly superior to ordinary CRT exposure systems, the RGB laser system produces smooth, even gradations that are characteristic of a single light source for each color component.



High-speed, high-resolution line scanner

With its ability to read a broad range of film densities, this high-resolution three-line CCD (5000 pixels x three colors) developed by Fujifilm ensures high-speed precision scanning.



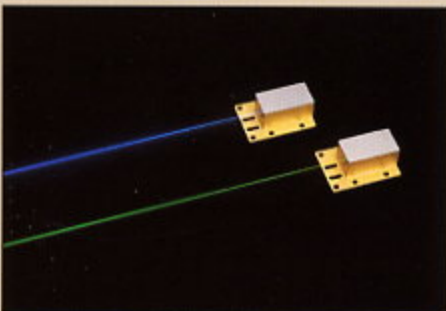
Backlighting adjustment

The Frontier 350/370 performs image density adjustment independently for both foreground and background areas, so it's able to compensate for strongly backlit scenes automatically.



Facial enhancement feature

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



Exceptional speed and image quality – clear advantages of Fujifilm's proprietary laser exposure system

Fujifilm's specially developed blue and green solid-state lasers (along with a red semiconductor laser) minimize flare and ensure smooth color gradation. The result is sharp, vivid prints with accurate color rendition.



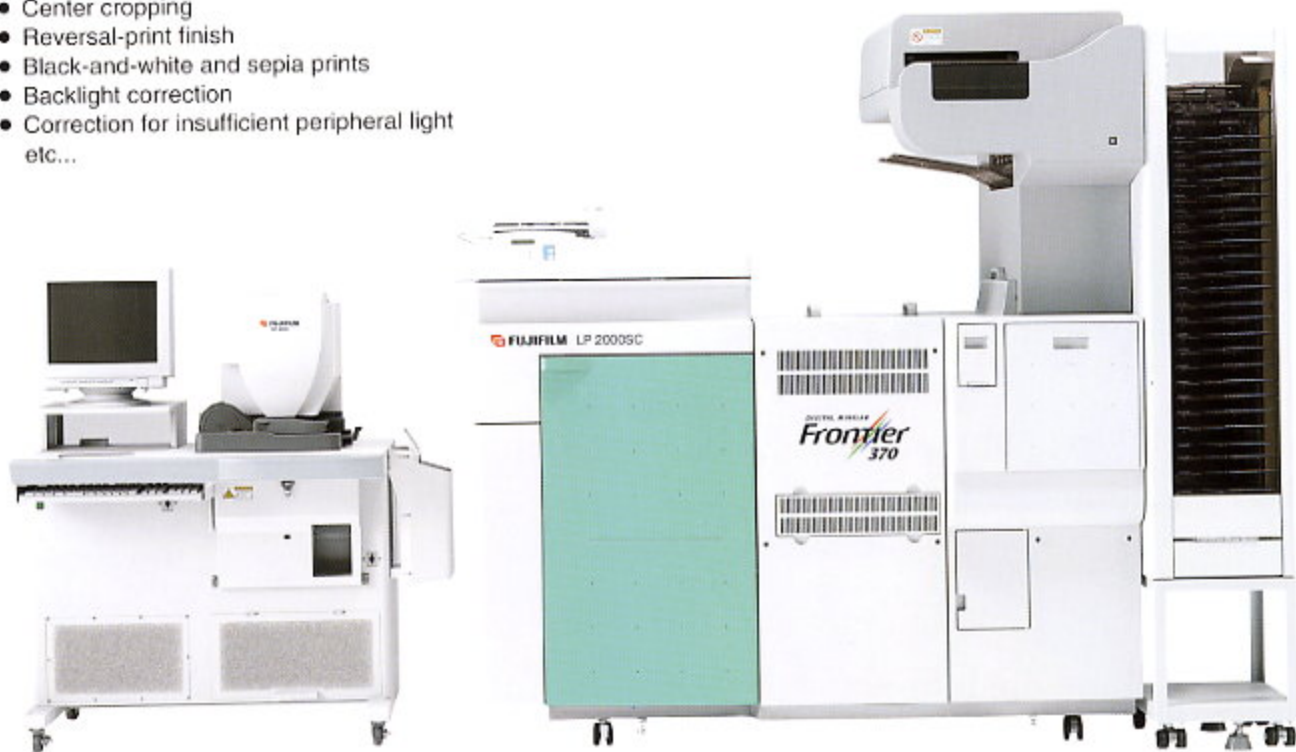
Print services to meet the demands of today's consumers

Digital processing gives your customers greater choice than ever before. They'll enjoy choosing from an appealing variety of specialized print formats, and you'll appreciate the ease with which you can manipulate and correct their photo images.

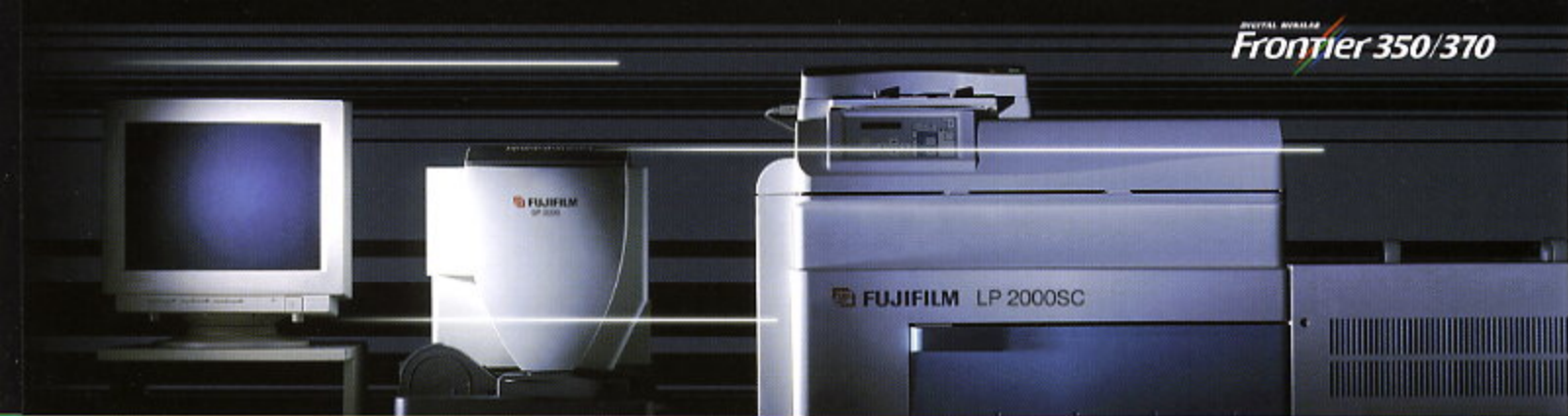
Standard Print Service Software

The Frontier comes with standard, out-of-the-box software to easily compensate for difficult lighting situations, enhance photo sharpness, and perform certain specialized services such as monochrome printing. Prints can also be magnified and cropped, letting you offer highly customized services with minimal effort.

- Sharpness adjustment
- Over- and under-exposure correction
- High-contrast correction
- Center cropping
- Reversal-print finish
- Black-and-white and sepia prints
- Backlight correction
- Correction for insufficient peripheral light etc...



Frontier 370



Optional Software

Optional software exploits the Frontier's sophisticated digital image processing capabilities, making it easy to create alternate print finishes and special effects like soft focus. There's also a wide range of print formats, designed to attract new customers and bring in extra orders.

Variety Print Service Software



Standard

- Red-eye compensation
- Soft focus
- Cross filter
- Free cropping



Template Vol.1/Vol.2

- Frame print
- Prints with text
- Calendar print
- Album print
- Memory copy print
- Large Index print etc...

Imaging Controller Optional Software

As your customers take advantage of new digital imaging options – from digital cameras to computer imaging software – the Frontier will be ready to supply the print services they need.



DI Print/Data Writing Service Software

- Digital camera print service
- Media print services
- Prints from flatbed scanner (print-to-print service)
- Data writing to storage media from film



DI File Import/Export Service Software

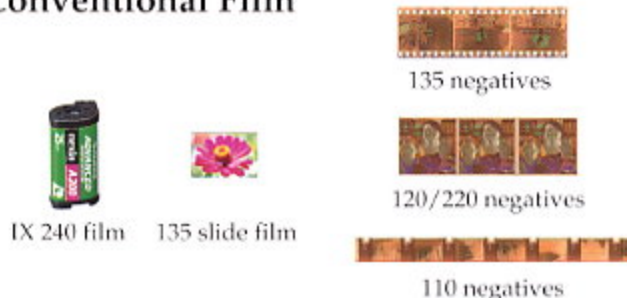
- Import service (printing computer-manipulated images directly from the Image Controller)
- Export service (converting scanned film image data to BMP format and saving it)

Versatile input media and output formats respond to your customers' changing needs.

Whether they're using digital media or conventional film, whether they want standard sizes or specialized formats, your customers will appreciate the fact that you're able to handle all their photographic requirements, and you'll appreciate just how easy it is to offer them the services they want.

INPUT

Conventional Film

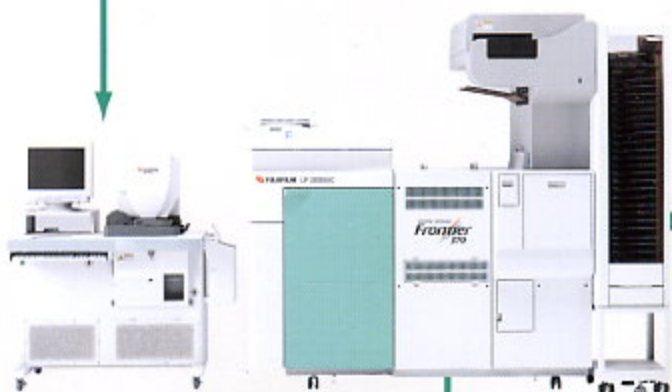


Digital Still Camera



Option Software

- Variety Print Service Software (Standard)
- Variety Print Service Software (Template)



Frontier 350/370

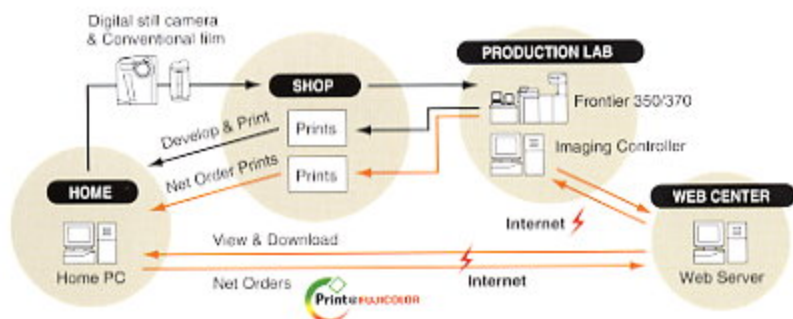
OUTPUT

Standard Service



Variety Print Service





Fujifilm Network Service

Taking advantage of the Frontier 350/370'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.

Digital Media



FUJICOLOR CD



Prints



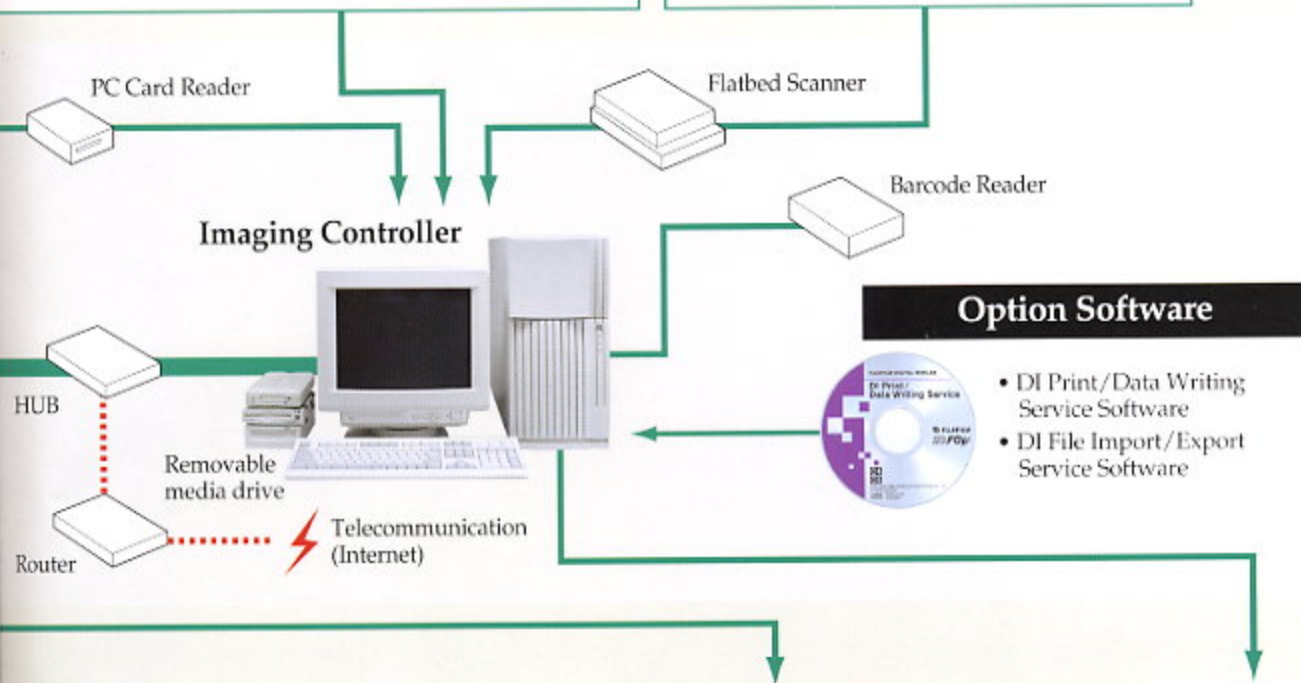
Instant photos



Color print



Monotone print



Greeting Card Prints



Memory Copy Prints



Calendar Prints



ID Photos (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 Print Service Software



Backlight correction

In an overly backlit scene, figures in the foreground are too dark and the background is too bright. The relative brightness of foreground figures and background is corrected.



Sharpness adjustment

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.



Overexposure correction

Overexposure and underexposure correction

In overexposed and underexposed negatives, brightness and contrast can be automatically corrected to produce prints of near-standard brightness.



Underexposure correction



High-contrast correction

In a flash shot with a dark background, foreground figures can be too bright while the background is too dark. The relative brightness of foreground figures and background is corrected.



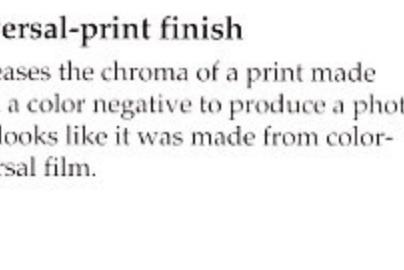
Compensation for corner falloff and improperly positioned film

Photos may exhibit dark areas in the corners, due to insufficient flash strength and distortions due to transport mechanism errors. The Frontier 350/370 compensates for both these aberrations.



Center cropping

Prints can be magnified or reduced, and then cropped, using the center of the film image as an axis. Cropping from the right or left side of the image is also possible. Magnification range: from 98 percent of standard magnification (determined by film and print size) to 42 times the film's dimensions.



Reversal-print finish

Increases the chroma of a print made from a color negative to produce a photo that looks like it was made from color-reversal film.



Monochrome finish

Produces black-and-white and sepia monochrome prints from color negatives and color-reversal film.

Sophisticated custom services

Providing customized image-enhancement services to your customers is now simpler than ever. You can even store adjustment settings such as correction levels, tones, key steps, hypertones, color balance, and sharpness. Settings can be made for color negatives, reversal film and monochrome film, and up to 65 different settings for each film type can be saved.



Red-eye compensation

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



Soft focus

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



Cross filter

The Cross filter places a 45-degree cross of light on any point on the photo to create a bright, cheerful 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 effect, adding crosses of light and softening the focus at the same time.



Free cropping

Custom cropping can be performed, with film images moved up, down, to the right or left, revolved, and/or magnified. Magnification range: from 98 percent of standard magnification (determined by film and print size) to 42 times the film's dimensions.



Optional Software **Variety Print Service Software**

Template vol.1/vol.2

Frame prints

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

Large frame prints

These are extra-large-size prints (8x10" and larger) surrounded by ornamental frames of various designs.



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.

Large-size prints with text

This is the same as the "Prints with text" template, except it produces larger-size prints. Custom text can be freely inserted into text boxes of various designs.

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. Frames may be freely chosen from more than one roll of film. A choice of background design is also available.



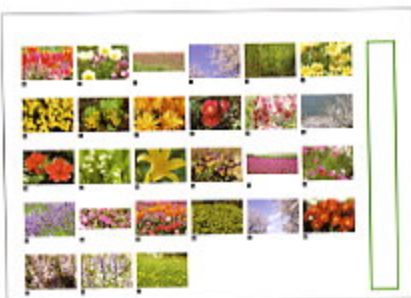
Memory copy prints

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.



Package prints

This template produces a "package" of multiple copies of a chosen frame at different magnifications on a 8" x 10" or 10" x 12" sheet. A variety of configurations are available.



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.



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.

ID photos

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



Custom Template Editing

Be creative and design your own templates, and offer your customers unique designs and formats that they won't find anywhere else. A full toolbox of editing tools gives you the flexibility to create just about any custom template you can imagine. (For full details on editing, please consult your dealer.)



Optional Software **DI Print/Data Writing Service Software**

DI Print Service

Digital Still Camera Print Service



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



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



Use an external scanner connected to the Imaging Controller to scan in original prints, then create new prints.

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.)



Optional Software **DI File Import/Export Service Software**

Data import and export features expand the functionality and flexibility of your Imaging Controller.

Import Service

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



Easy operation for effort-free quality prints

The Frontier 350/370 system was designed to make every aspect of production as simple and automated as possible, so that anyone could create beautiful, optimally processed prints without special training or complicated procedures.

Perfect one-channel print system

The Frontier 350/370'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 350/370 immediately, without a lot of time-consuming training. Up to six prints can be displayed on-screen at once, making it easier to check color balance.



Two standard automatic paper magazines

The two built-in paper magazines can be loaded with paper of different sizes (anywhere from 8.9 to 25.4cm in width) to make it easy to switch back and forth between sizes. Automatic loading eliminates paper replacement errors and minimizes paper loss during printing.



Efficient, time-saving print sorting system

The Frontier 350/370 uses an automatic sorting system to help achieve remarkably high output capacity. The Frontier 350 comes with a 11-order sorter, while the Frontier 370, a choice of either a 11-order sorter or a 25-order sorter. Each unit sorts and stacks prints by order, for easy filing and delivery. Prints larger than 152mm are fed to a stocker for separate handling.

11-order sorter



25-order sorter

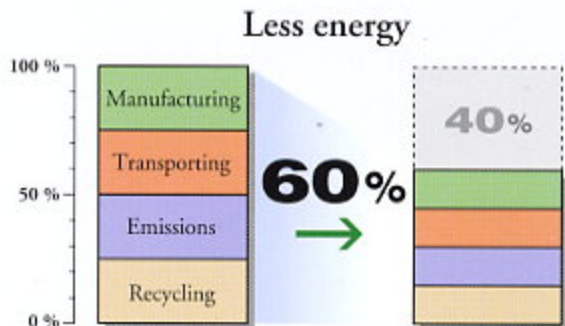
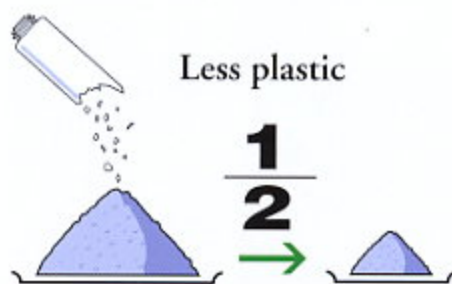


One-touch chemical replenishment

Fujifilm's compact single-cartridge system makes the process of chemical replenishment cleaner, simpler, and virtually error-free. Each cartridge is small and easy to carry but ready to supply a long-lasting supply of chemicals. 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 100% recyclable plastic containers use 50% less plastic than previous products (meaning they also use less energy), and their compact size translates into lower storage space requirements. And the new chemical process creates less effluent while cutting replenishing needs by about 10%, yet another way in which the system has been made more friendly to the environment.



CP-48S



Automatic film carriers

The Frontier 350/370 handles four different film carriers, all of them designed to simplify the process of film loading and processing. The NC240Y 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 NC135Y 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.



NC135Y



NC240Y



SC135Y*
(Reversal Mount Auto Carrier)

* The SC135Y will soon be available.

Fujifilm Digital Minilab Frontier 350/370 Main Specifications

Input unit

SCANNER & IMAGE PROCESSOR

Frontier 350 / Frontier 370 (SP-2000)

Scanning section:	3-line CCD; scanning of transported film.
Film carriers:	<ul style="list-style-type: none"> 135 automatic negative carrier NC135Y (standard); 135F/P/Hv, 135 H, strips/piece (accepts sepia and black-and-white films). Automatic negative carrier NC240Y for Advanced Photo System (IX240) film (standard); Advanced Photo System (IX240) C/H/P color negative cartridge/piece (accepts sepia and positive films). 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).
Image processing:	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.
Display:	15-inch CRT color display Multi-frame display capability (standard 6-frame display, can be set to display single frame or six frames).
Power requirements:	AC200-240V (50/60Hz) 10A, 2.4KVA
Dimensions:	936 (W) x 805 (D) x 1,238 (H) mm
Weight:	Approx. 146kg
Installation space:	Approx. 0.76 m ²

Output unit

LASER PRINTER/PAPER PROCESSOR

Frontier 350 (LP-1500SC) / Frontier 370 (LP-2000SC)

Type:	Floor-type, normal-light operation (laser printer, processor, cutter, sorter in one unit).
Exposure system:	Scanning exposure system using RGB lasers (solid-state G and B lasers).
Paper magazines:	Two switchable paper magazines (standard accessory).
Paper:	FUJICOLOR paper (silver-halide).
Paper widths:	8.9, 9.5, 10.2, 11.7, 12.0, 12.7, 13.0, 15.2, 16.5, 17.8, 20.3, 21.0, 21.6, 25.4cm.
Back printing:	Two 40-character lines in Backside print of information from Advanced Photo System cartridge film; one 40-character line for 135 and other film sizes.
Front printing:	Time and date of photograph in black characters in lower-right corner on prints from Advanced Photo System (IX240) cartridge film.

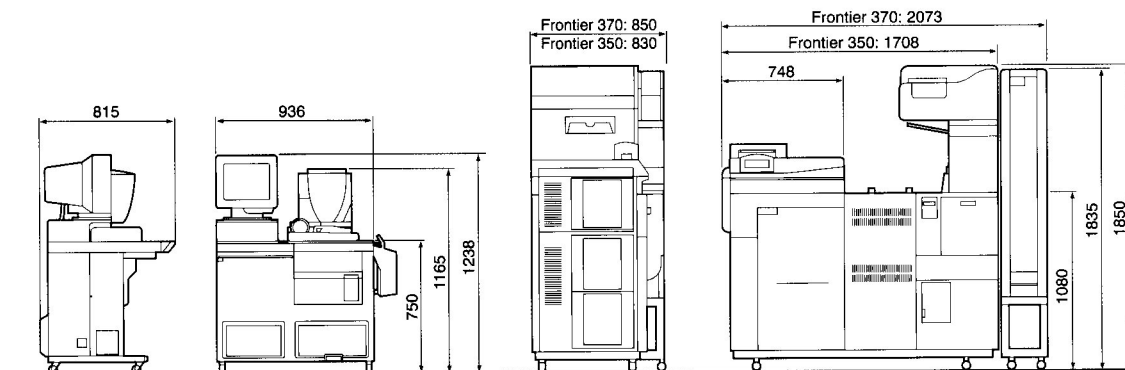
Index print:	Color index print and normal prints can be printed from Advanced Photo System/135 (negative, positive, black and white) film in one pass (by RGB laser exposure).
Printer sorter:	SU1100Y; sorting capacity: 11 orders of C/H/P-mixed-format prints. (25-order sorter is also available for the Frontier 370)
Printer condition setup:	Semi-automatic calibration by AD100 calibrator.
Processor carriage:	Multi-line, sheet carriage.
Processing time:	Dry to dry: 4 min.
Power requirements:	AC200-240V (50/60Hz) Single-phase 25A, Three-phase three-wire and four-wire, 16A approx. 6KVA.
Dimensions:	350 (with 11-order sorter): 830 (W) x 1,708 (D) x 1,850 (H) mm. 370 (with 25-order sorter): 850 (W) x 2,073 (D) x 1,850 (H) mm.
Weight:	350 (with 11-order sorter): Approx. 480kg (550kg during actual operation). 370 (with 25-order sorter): Approx. 538kg (620kg during actual operation).
Installation space:	Approx. 1.40 m ² .
Processor capacity: (actual production)	350: • 135: 3R/ 89 x 127 mm: Approx. 1,300 prints/hr. (using 89 mm width paper) 4R/ 102 x 152 mm: Approx. 1,050 prints/hr. (using 152 mm width paper) 254 x 305 mm: Approx. 200 prints/hr. • Advanced Photo System (IX240): 36 rolls/hr. (3R C/H/P-mixed-format prints; 25 exp. roll and index print), (using 89mm width paper). • Digital still camera prints: 400 prints/hr. (DSC print size; prints from PC card and SmartMedia™). • Media Prints: 400 prints/hr. (printed from Zip™ or MO disk). 370: • 135: 3R/ 89 x 127 mm: Approx. 1,550 prints/hr. (using 127 mm width paper) 4R/ 102 x 152 mm: Approx. 1,450 prints/hr. (using 152 mm width paper) 254 x 305 mm: Approx. 200 prints/hr. • Advanced Photo System (IX240): 44 rolls/hr. (3R C/H/P-mixed-format prints; 25 exp. roll and index print), (using 89 mm width paper). • Digital still camera prints: 400 prints/hr. (DSC print size; prints from PC card and SmartMedia™). • Media Prints: 400 prints/hr. (printed from Zip™ or MO disk).
Printable films:	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).
Print sizes:	82.5 x 117 mm ~ 254 x 381 mm.
Acceptable digital media:	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.
Processing chemicals:	New chemical system CP-48S.

Specifications are subject to change without notice.
All brand names or trademarks are property of their respective owners.



The Frontier 350/370 has received the UL/CUL/CE Marks for meeting high safety standards.

Dimensions



FUJI PHOTO FILM CO., LTD.

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