



# 518 Color Reflection Spectrodensitometer



## An Advanced Solution For Process Color Printing

The X-Rite 518 Spectrodensitometer combines everything you need for exceptional 4-color proofing and pressroom quality control: spectral accuracy, a full range of functions, efficient operation, and hand-held convenience.

## The 518 Meets The Needs Of Any 4-Color Pressroom

The 518 excels at quality control for all 4-color printing operations, including sheet-fed, web press, publication printing, and newsprint. At the touch of a button, you get density, dot, trap, print contrast, hue error, or grayness information, all of it calculated with spectral accuracy. The hand-held, portable design goes anywhere to quickly take measurements and deliver the data you need to keep your presses on target.

## Special Electronic Function Selection™ Feature

With each reading along the color bar, the 518's Electronic Function Selection (EFS) feature automatically identifies whether it is a solid, tint, or overprint. It automatically displays the correct reading and color being measured. EFS allows an operator to read an entire color bar in seconds. It also reduces guesswork and helps you finish your print jobs more efficiently.

## Spectrally Based

All of X-Rite's 500 Series models capture high-resolution spectrophotometric data, which is used as the basis for all of our color and density values. X-Rite's spectral technology produces the highest level of inter-instrument agreement available in densitometers today. This means you can trust X-Rite's 500 Series technology to give you the most accurate, consistent, comparable color measurements from different presses, among suppliers, between customer and the printing facility, and from two or more printing sites.

## Large Interactive Display

The 518 boasts a large, crisp graphic display configurable for left- or right-handed operation. This same high-resolution display also features full menu commands in multiple languages, to meet the needs of most any location (including English, French, German, Italian, Portuguese, Spanish, Chinese and Japanese plus additional languages).

## Intelligent User Interface

An intuitive key-pad uses universally understood up/down arrow keys and a select key to easily navigate menu items. For efficiency, we also included a "back" key, and an "escape" key, which quickly and easily takes users back to the main menu.

## Upgradeable

All instruments in the 500 Series are firmware upgradeable. You can easily add functionality as your needs change, maintaining the value of your investment.

## On Target

Another X-Rite first is our unprecedented microspot aperture size that is as small as 1.6mm x 3.2mm. This option makes short work of targeting special-color or density measurements. Just locate a bar code, some solid type, or a graphic element and quickly check the color.

## Ergonomic Design

All of our new hand-held instruments apply ergonomic concepts to fit naturally in your hand. The targeting shoe clearly pinpoints the measurement area so you get the right measurement every time.

## Rugged Construction

The 500 Series instruments absorb the inevitable bumps of everyday use. The 500 Series carries the tradition of being perhaps the most durable instruments in the industry. You will get years of accurate and reliable performance.

## User Interface

- Sharp/reversible display
- Left- and right-hand operation
- Interactive menu and key system
- Clear recognition of function when measuring
- Auto color select
- Four-color display
- Multiple languages supported

## Security

- Lock out of specified functions
- Lock out of configuration menu
- Security cable (optional)

## Density Features

- Density (absolute or minus paper)
- Density Difference (16 reference values)
- Dot Area
- Dot Gain w/triple reference
- Print Contrast
- Apparent Trap
- Hue Error/Grayness
- Electronic Function Selection (EFS)
- Non-Heat mode for newspapers
- Switchable Status Responses (T, E, A, G, Tx, Ax, and Hi-Fi)

## Accessories Provided

- Calibration Reference
- Getting Started Guide
- CD Operator's Manual
- AC Adapter
- Carrying Case
- 3 year warranty

Note: X-Rite calibration references are traceable to the U.S. National Institute of Standards and Technology through Munsell Color Science Laboratory RIT.

## Options

- Polarization Filter (not available on 2.0mm version)
- Ultra Violet Filter
- 2.0mm Aperture (not available with polarized version)
- 6.0mm Aperture
- Microspot Aperture 1.6mm x 3.2mm (available as factory option only)
- RS-232 Interface Kit
- Security Cable
- External battery charger and extra battery
- Extended warranty coverage (contact factory)

## Specifications

### Measurement Geometry

45°/0° per ANSI & ISO Standards

### Spot Size at Sample

3.4mm (.13in) standard  
2mm (.078in) optional  
6mm (.236in) optional  
1.6mmH (.051 in.) x 3.2mmW  
(.102 in.) Micro-Spot optional

### Light Source

Gas Pressure @ 2856°

### Response Types

T, E, I, A, G, Tx, Ex, Hi-Fi

### Measurement Range

0.00D–2.5D; 0–160%R

### Measurement Time

Approx. 1.4 seconds, approx.  
.9 seconds for consecutive measurements in Speed Read mode

### Warm Up Time

None

### Repeatability

±0.005D 0–2.0D\*  
±0.010D 2.0–2.5D\*  
\*Polarized Yellow ±0.010 0–1.8D  
Micro-Spot ±0.010D 0.0–1.8D

### Inter-Instrument Agreement

0.01D or 1% for typical printing processes

### Data Interface

RS-232 serial interface with baud rates from 1200 to 57.6K communication

### Power Source

Ni-MH battery pack, 4.8v rated @ 16250mAH

### Charge Time

Approximately 3 hours

### Environmental

+10°–35°C operating, 30%–85%RH non condensing

### Physical Dimensions

Height: 81mm (3.2in)  
Width: 76mm (3.0in)  
Length: 197mm (7.8in)

### Weight

1050 grams (2.3lbs.)



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1.6 x 3.2mm 4-color ©2000 X-Rite Incorporated  
Use 500's micro-spot aperture



3.2mm 4-color ©2000 X-Rite Incorporated  
Use 500's 2.0mm aperture



4.5mm 4-color ©1996-1997 X-Rite Incorporated  
Use 500's 3.4mm aperture