



964

Portable 0/45 Spectrophotometer

A 0/45 handheld spectrophotometer, with a special JOBS mode, designed to address a wide range of industry specific color needs, ensuring consistent color quality in the plant, laboratory, or field.

964 Advantages

- **Easy to Read.** Large, graphical LCD display
- **Special PROJECT Mode.** Multiple color standards can be collected under an identified project as part of corporate color standards programs
- **Special JOBS Mode.** A programmed sequence of specific steps to guide an operator through a color measurement process, assuring consistency
- **Pass/Fail Mode.** Up to 1,024 standards with tolerances can be stored for easy pass/fail measurement
- **Interchangeable Apertures.** Measuring apertures to accommodate a range of samples
- **Inter-Instrument Agreement.** Superior agreement capabilities ensures integrity of multiple-instrument color control
- **Wide Colorimetric Range.** CIE XYZ, CIE Yxy, CIE LAB, Hunter LAB, CIE LCH, CMC, CIE94, Whiteness and Yellowness per ASTM E313-98, Metamerism Index and DIN 6172
- **Opacity, Color Strength and Shade Sorting.** Device measures opacity, color strength in chromatic, apparent, and tri-stimulus calculations, and 555 shade sorting for precise color control of products involving plastic, painted, or textile materials
- **User-Friendly Ergonomics.** A wrist strap and tactile side grips facilitate holding and a flip back target shoe adds flexibility
- **Rechargeable Battery.** Allows for remote use

964 Options

- Remote battery charger
- Replacement rechargeable battery packs
- Fixtures and accessories for standardized sample measurement
- UV filter 968-61-08E

X-Rite: Your source for accurate color. On time. Every time.

X-Rite is a world leader in providing global color control solutions for manufacturing and quality management requirements.

We lead the industry in offering service options to ensure uninterrupted performance of all X-Rite products. Training and educational resources are available globally and online for both new and experienced users to optimize their color measurement capabilities.

Visit xrite.com for more information about X-Rite products. X-Rite customers worldwide may also call the Applications Support team at CASupport@xrite.com or Customer Service at 800-248-9748.

X-RITE WORLD HEADQUARTERS

Grand Rapids, Michigan USA • (800) 248-9748 • +1 616 803 2100
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Specifications

Model Numbers 964 (includes all three aperture sizes)	Measuring Time Approx. 2 seconds
Measuring Geometrics 0°/45°, DRS spectral engine, interchangeable apertures: <ul style="list-style-type: none"> • 4mm measurement area/6.5mm target window • 7mm measurement area/9mm target window • 15mm measurement area/21.5mm target window 	Lamp Life Approx. 500,000 measurement
Light Source Gas-filled tungsten lamp	Power Supply Removable (Ni-metal hydride) battery pack
Illuminant Types C, D50, D65, D75, A, F2, F7, F11 & F12	AC adapter Requirements 90 – 130VAC or 100-240VAC, 50 – 60Hz, 15W max
Standard Observers 2° & 10°	Charge time Approx. 4 hours – 100% capacity
Detector Blue-enhanced silicon photodiodes	Measurements Per Charge 1,000 measurements (within 8 hours)
Spectral Range 400 – 700nm	Display 128 x 256 pixel graphical LCD
Spectral Interval 10nm – measured 10nm – output	Data Interface Patented bi-directional RS-232, 300-57,600 baud
Storage 1,024 standards with tolerances, 2,000 samples	Operating Temperature Range 50° to 104°F (10° to 40°C) 85% relative humidity maximum (non-condensing)
Inter-Instrument Agreement CIE L*a*b*: 7mm/15mm Avg. 0.15 ΔE^*_{ab} based on avg. of 12 BCRA Series II tiles Max. 0.30 ΔE^*_{ab} on any tile 4mm Avg. 0.20 ΔE^*_{ab} based on avg. of 12 BCRA Series II tiles Max. 0.40 ΔE^*_{ab} on any tile	Storage Temperature Range -4° to 122°F (-20° to 50°C)
Short-Term Repeatability¹ 0.05 ΔE^*_{ab} on white ceramic (Standard deviation)	Weight 2.4 lbs. (1.1 kg)
Measurement Range 0 to 200% reflectance	Dimensions 4.3"H 3.3"W 7.7"L (10.9 cm 8.4 cm 19.6 cm)
	Accessories Provided Calibration standards, operation manual on CD-ROM, AC adapter and a carrying case
	<small>1Based on 20 measurements on a white tile. * Specifications and design subject to change without notice. X-Rite standards are traceable to National Institute of Standards and Technology, Gaithersburg, Maryland, USA.</small>