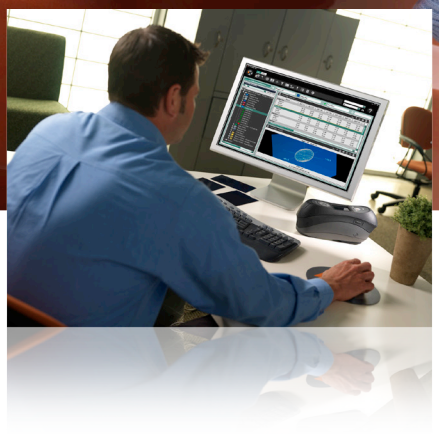

MA94, MA96 and MA98

Spectrophotometers

Portable multi-angle spectros that take the measure of special effect colors

You want the newest colors, the latest special effects. And you have to match these colors in every component, every part, every shipment. After all, your name is on the line.

X-Rite understands. That's why we've put our name on a family of hand-held spectrophotometers that give you the ability to easily, accurately, and consistently measure traditional and special effect paints and coatings. Small, but powerful, all three instruments share core features that quickly produce precise, reliable color measurements anywhere from the lab to the production line to QC operations and shipping.

These instruments are designed with varying levels of sophistication, giving you the option to choose the spectro best suited for your operation and budget. All feature exclusive operating advantages — such as X-ColorQC® software that enhances process recording, reporting, and control and a JOBs software mode that allows text or visual measurement direction to ensure consistency.

Get the colors and effects you want. Every time. With portable multi-angle measurement tools from X-Rite. When your name is on the line, rely on ours.

x-rite

Taking the Mystery Out Of Special Effect Paints

Manufacturers said they wanted reliable and affordable spectrophotometers that could used anywhere from the shop floor to the lab to measure anything from standard coatings to the most complex special effect metallic paint.

X-Rite listened and responded with the MA94, MA96 and MA98 family of portable multi-angle spectros: instruments that provide exactly the right features at just the right price.

And in the way you'd expect it to respond to a challenge, X-Rite came up with a revolutionary new technology incorporated in the MA98 spectro that integrates and measures aspects of special effect paints similar to the way the human eye perceives color and appearance -- taking into account not only the color, but also the surface and subsurface qualities of the coatings.

Companies all along the supply chain can now share a reliable method for measuring the color and appearance of effect paints that contain metallic, pearlescent, or special effect interference pigments. X-Rite's proprietary technology offers a leap for businesses that have struggled to precisely manage special effect paints that could only be measured through time-intensive, laboratory-based tests using expensive instruments. The result: improved uptime on a painting or assembly line, reduced scrap rates and quick root cause analysis when problems are discovered.

Manufacturers need an exact way to measure and communicate the qualities of today's complex special effect paints -- something much more precise than trying to relate the "sparkle" or "coarseness" of samples. X-Rite has the answer with its new spectros.

Improved measurement performance and capability

- 3 level, user selectable, pressure sensors improve sample presentation, especially on slightly curved and flexible surfaces
- Improved spectral discrimination engine yields improved repeatability
- Modular lamp design insures consistency of results post service or certification

Backward compatibility

- Allows for drop in replacement of MA68II or consistency between a mixed population

Improved handling and usability

- Rugged, ergonomic design
- Color LCD display with easy to understand icon driven menu
- Improved lamp performance results in longer life
- Improved Li ion battery packs, commercially available
- USB 2.0 or Bluetooth wireless communication
- Bundled with X-Rite's exclusive X-Color QC™ measurement and analysis software.

Improved JOB

- Simpler programming and download
- Provides both visual (image) and text measurement instruction to insure consistency of measurement from shift to shift

MA94/96/98

Features	MA94	MA96	MA98
JOBS	Job workflow with embedded images and Tags		
Illumination	45° tungsten halogen module	45° tungsten halogen module	45° and 15° tungsten halogen modules
Battery life	Up to 1500 measurements, Li ion dual battery packs		
Inter-instrument agreement	0.18 ΔE* avg. on BCRA		
Repeatability	0.03 avg. ΔE* white ceramic		
Aspecular angles	5 Aspecular angles: 15, 25, 45 ,75,110	6 Aspecular angles: -15, 15, 25, 45 ,75,110	6 Aspecular angles (45): -15, 15, 25, 45 ,75,110 2 Aspecular angles (15): -15, 15 Out of plane angles
Pressure switches	3 circumferential sensors with 3 user selectable levels and feedback		
Data compatibility	Backward compatibility to MA68II data		
Full color display	2.7 inch backlit full color LCD (6.85 cm)		
Measurement time	Approx. 2 seconds		
Wireless	Bluetooth		
Memory	250 standards, 1000 samples internal		
Software	XColorQC™		
Warranty	1 year		

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 on line 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 MA9X Specifications

Measuring Geometrics	
Illumination	45°
Aspecular Viewing	-15°, 15°, 25°, 45°, 75°, 110°
Out-of-plane	25°az90, 25°az-90, 60°az125.3, 60°az-125.3
Secondary Illumination	15°
Aspecular Viewing	-15°, 15°
Angular Accuracy	±0.15° Fiber Optic pick up coupled with DRS technology
Measurement Area	Approx. 12mm (.5 inch)
Light Source	Gas filled tungsten lamp
Lamp Life	750,000 measurements typical
Spectral Range	400nm – 700nm
Spectral Interval	10nm (31 measured points)
Measurement Range	0 - 400%
Colorimetric Illuminants	A, C, D50, D65, F2, F7, F11 & F12
Colorimetric Standard Observers	2° & 10°
Colorimetric Scales	L*a*b*, L*C*h°, ΔE*; ΔECMC; ΔE DIN6175, ΔE_{2000}
Effect Parameters	MA98 only, Flop Index
Measurement Time	Approx. 2 seconds
Reproducibility (Inter-instrument agreement)	0.18 ΔE* avg on reference Series II BCRA tile set
Repeatability	0.03 avg. ΔE* on white cal plaque (20 measurements at 5 sec intervals)
Power Supply	Rechargeable Lithium Ion battery pack 7.4vDC @ 2400mAh
AC Adapter	12vDC, 2.5 amps
Measurements per charge	Up to 750
Measurement storage	250 Standards 1000 Samples
Data interface	USB 2.0 Bluetooth wireless (in compliant countries only)
Operating Temperature Range	50F to 104F (10C to 40C) 85% Relative Humidity max (non-condensing)
Storage Temperature Range	-4F to 122F (-20C to 50C)
Dimensions	3.4 x 4.5x 10.6 (8,7cm x 11,4cm x 26,9cm)
Weight	2.5 lbs
Standards	
ASTM	D 2244, E 308, E 1164, E 2194, E 2539 (MA98 Only)
DIN	5033, 6174, 6175-2
ISO	7724
SAE	J1545

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