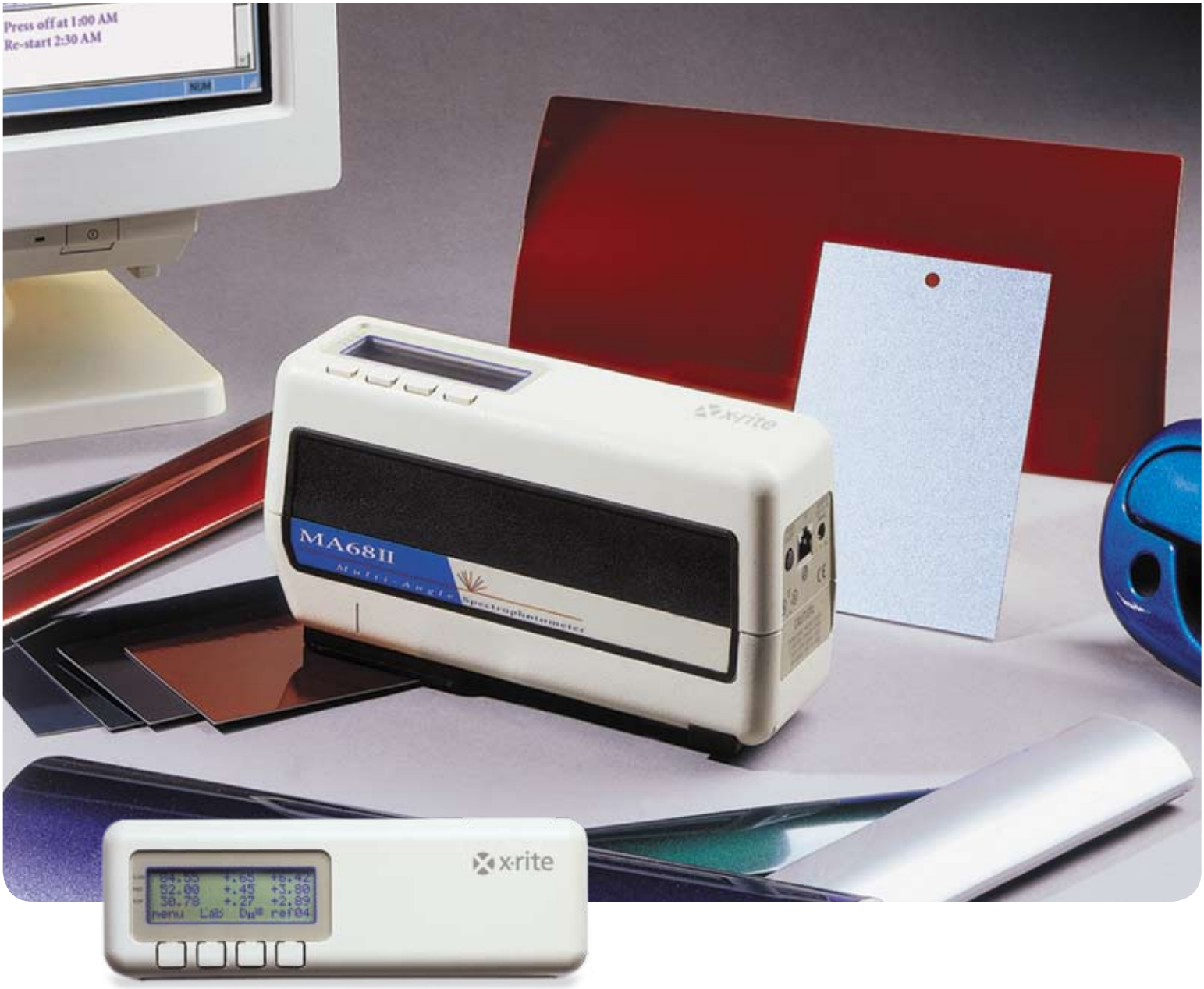

MA68II

Portable Multi-Angle Spectrophotometer

A rugged, compact design for fast, precise color measurement information on metallic, pearlescent, and special effect finishes. Its full range of angular viewing ensures complete, accurate readings that reduce downtime and wasted material. Color values are obtained for the following colorimetric systems: L*a*b*, ΔL*Δa*Δb*, L*C*h°, ΔL*ΔC*ΔH*, Flop Index, ΔFlop Index, $\Delta E_{L^*a^*b^*}$ and ΔE_{cmc}.

x-rite

MA68II Advantages

- **Easy to Use.** Portable, lightweight, with LCD display
- **Efficient.** Measuring time per sample within 2 seconds
- **Dynamic Rotation Sampling (DRS).** Exclusive optical technology that provides for simultaneous measurement of all angles
- **Rechargeable Battery.** Allows for remote use
- **Accessible Long-Term Data.** Remote operation permits storage of measurement data for retrieval and printing to aid in maintaining color standards
- **Durable.** Supported by unprecedented two-year warranty
- **Quality Assurance software included.** The graphical capabilities of the Metallix-QA program allow for application-specific bitmapping for advanced comparison

Specifications

Measuring Geometrics
- 45° illumination
- 15°, 25°, 45°, 75°, 110° aspecular viewing
- Angular accuracy ±0.15°
- Fiber optic pick-up, coupled with DRS technology

Measuring Area
0.5 in. diameter (12mm)

Light Source
Gas-filled tungsten lamp, color corrected to approx. 4000°K

Illuminant Types
C, D_{65}, D_{50}, A, F2, F7, F11 & F12

Standard Observers
2° & 10°

Receiver
Blue-enhanced silicon photodiodes

Spectral Range
400nm - 700nm

Spectral Interval
28 band spectral measurement:
- 10nm interval from 400nm - 640nm
- 20nm interval from 640nm - 700nm
- 15nm bandwidths

Spectral Data Output
Spectral reflectance values are available for output from the RS-232 port for 5 angles at 10nm intervals from 400nm - 700nm

Measurement Range
0 to 400% reflectance

Measuring Time
Approx. 2.0 seconds

Inter-Instrument Agreement
- 0.18 ΔE* avg. on reference BCRA tile set
- 0.35 ΔE* max. on any chromatic tile
- 0.15 ΔE* max. on any grey tile

Short-Term Repeatability
0.10 ΔE^*_{ab} on white ceramic

Lamp Life
Approx. 500,000 measurements

Power Supply
Six rechargeable AA Ni-metal hydride batteries included
- Removable battery pack; 7.2 VDC rated @ 1400 mAh

AC Adapter Requirements
- MA68: 90-130VAC, 50-60Hz, 15W max
- MA68X: 180-260VAC, 50-60Hz, 15W max
- 12 VDC @ 700 mA

Charge Time
In Instrument – 4 hrs (50%)
16 hrs (100%)

Measurements Per Charge
1,000 5-angle measurements (continuous measurements @ 10 sec. intervals)

Data Storage (five angles)
200 Standards
850 Samples

Data Interface
Patented bi-directional RS-232, 300-19,200 baud

Display
4-row by 20-character supertwist dot matrix LCD

Operating Temperature Range
50° to 104°F (10° to 40°C)
85% Relative humidity max (non-condensing)

Storage Temperature Range
-4° to 122°F (-20° to 50°C)

Weight
3 lbs. 2 oz. (1.4 kg)

Dimensions

4.56"H	3.00"W	8.85"L
(11.6cm	7.6cm	22.5cm)

Accessories Provided
Calibration standards, operation manual, AC adapter & carrying case

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.

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