Digital Micro-Ohmmeters

Models 6240, 6255 & 6292

Measure low resistance with high accuracy

► Selectable test currents from 10mA to 200A (model dependent)

► Resolutions to 0.1 micro-ohm

► Accuracies to 0.05%

► Large easy to read backlit display

► Automatic and software temperature compensation (model dependent)

► Automatic multipoint measurements

► Internal data storage of test results

► Analysis and report generation software (DataView®) included

► Buit into a rugged field proven case

► Kelvin test cables included

Our products are backed by over 130 years of experience in test and measurement equipment, and encompass the latest international standards for quality and safety.

✆ **Technical Hotline: (800) 343-1391**

🖱 **www.aemc.com**

AEMC® INSTRUMENTS
CHAUVIN ARNOUX GROUP

MODEL 6240

Product 2129.80 Includes

- 2 Kelvin clips, 10ft (10A - Hippo)
- 2 Kelvin Probes 10ft (1A, spring loaded)
- NiMH rechargeable battery pack*
- Optical USB cable
- US 115V power cord
- DataView® software
- Extra large tool bag
- 2 spare fuses (12.5A)
- User manual

*Can be charged during operation.

Accessories/Replacement Parts

- 1017.84   Kelvin Clips 10ft (10A - Hippo)
- 2118.70   Kelvin Clips 20ft (10A - Hippo)
- 2118.73   Kelvin Probes 10ft (1A, spring loaded)
- 2118.74   Kelvin Probes 20ft (1A, spring loaded)
- 2118.75   2 Kelvin Probes Pistol Grip 10ft (10A - spring loaded)
- 2118.76   2 Kelvin Probes Pistol Grip 20ft (10A - spring loaded)
- 2118.77   2 Kelvin Probes 10ft (10A - spring loaded)
- 2118.78   2 Kelvin Probes 20ft (10A - spring loaded)
- 2118.79   Kelvin Clips 10ft (1-10A)
- 2118.80   Kelvin Clips 20ft (1-10A)

FEATURES

▶ Reliable low resistance measurements
▶ Four-terminal Kelvin resistance measurement eliminates test lead resistance
▶ Measures up to 4000µΩ with 10A of test current
▶ 0.25% basic accuracy
▶ 1µΩ resolution
▶ Direct reading, easy to operate
▶ Test current selection of 1mA, 10mA, 100mA, 1A and 10A
▶ Polarity reversal button
▶ Overload and input fuse protection
▶ Manufactured to international safety and environmental standards
▶ Automatic scaling and zeroing
▶ Large terminals accept banana plugs and spade lugs
▶ Rechargeable NiMH battery with internal charger (110/230V) that can be charged during operation
▶ Rugged, double insulated watertight case
▶ Includes DataView® software for instrument configuration, data storage, analysis and report generation

APPLICATIONS

▶ Aerospace metallic coating resistance measurement
▶ Bonding verification on earth/ground systems
▶ Weld joint integrity verification
▶ Contact resistance measurement of breakers and switchgear
▶ Aircraft and rail bonding checks
▶ Wire to terminal connections and resistance checks
▶ Battery strap resistance checks
▶ Cable joint and bus bar connection checks
▶ Mechanical bond tests

Technical Assistance (800) 343-1391

AEMC® INSTRUMENTS

ELECTRICAL

Range	4000µΩ	40mΩ	400mΩ	4000mΩ	40Ω	400Ω
Accuracy	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts
Resolution	1µΩ	10µΩ	0.1mΩ	1mΩ	10mΩ	100mΩ
Test Current	10A	1A	1A	100mA	10mA	10mA
Measurement Mode	Single test start/stop or auto test and store of multiple measurements					
Power Source	Rechargeable 6V, 8.5Ah NiMH batteries					
Battery Life	Up to 850, 10A tests					
Battery Charging	Internal 110/230Vac, 50/60Hz charger					
Power Management	User selectable power save mode					
Low Battery Indication	▭ blinks when battery needs charging					
Memory	Stores up to 99 test results Data in memory can be reviewed on the instrument display, on a PC or via direct printout					
Communication Software	DataView® software					

MECHANICAL

Dimensions	10.70 x 9.76 x 7.17" (270 x 250 x 180mm)
Weight	10 lbs. (4.5kg)
Index of Protection	IP53 (case open); IP54 (case closed)
Color	Safety yellow case; gray faceplate UL94 V-O

DISPLAY

Display Type	4000-count LCD
Size	4 x 2.25" (102 x 57mm)
Blacklight	Blue electroluminescent

COMMUNICATION

Interface Port	Optically isolated USB

ENVIRONMENTAL

Operating Temperature	14° to 132°F (-10° to 55°C); 10 to 85% RH
Storage Temperature	-40° to +158°F (-40° to +70°C); 10 to 90% RH

SAFETY

Safety Rating	EN61010-1 300V CAT II
Double Insulation	Yes
CE Mark	Yes
Catalog No.	2129.80

1017.84 (10ft)
2118.70 (20ft)

2118.73 (10ft)
2118.74 (20ft)

2118.75
2118.76

2118.77
2118.78

2118.79 (10ft)
2118.80 (20ft)

MODEL 6255

Product 2129.84 Includes

- 2 Kelvin clips 10ft (10A - Hippo)
- 2 Kelvin Probes 10ft (1A, spring loaded)
- NiMH rechargeable 6V battery pack
- Optical USB cable
- US 115V power cord
- DataView® software
- Extra large tool bag
- User manual

Accessories/Replacement Parts

- 1017.84   Kelvin Clips 10ft (10A - Hippo)
- 2118.70   Kelvin Clips 20ft (10A - Hippo)
- 2118.73   Kelvin Probes 10ft (1A, spring loaded)
- 2118.74   Kelvin Probes 20ft (1A, spring loaded)
- 2118.84   Kelvin Probes Pistol Grip 10ft (25A - spring loaded)
- 2118.85   Kelvin Probes Pistol Grip 20ft (25A - spring loaded)
- 2118.77   2 Kelvin Probes 10ft (10A - spring loaded)
- 2118.78   2 Kelvin Probes 20ft (10A - spring loaded)
- 2118.79   Kelvin Clips 10ft (1-10A)
- 2118.80   Kelvin Clips 20ft (1-10A)
- 2129.95   RTD Temperature Probe
- 2129.96   RTD Temperature Probe w/ 7ft extension cable

FEATURES

▶ Test up to 60 minutes continuously at 10A
▶ Measure from 1µΩ to 2500Ω
▶ Test current selection of 1mA, 10mA, 100mA, 1A and 10A
▶ RTD temperature probe to check tested sample (optional)
▶ Selectable metal types
▶ Automatic and manual temperature correction
▶ EMF levels measured and eliminated in measurement
▶ Two programmable alarm set points
▶ Stores up to 1500 test results
▶ Selectable Inductive or Resistive test modes
▶ Automatic multiple test mode (multiple tests without pressing the test button)
▶ Large multi-line electroluminescent display
▶ Local or remote test setup and control
▶ Internal rechargeable batteries – conduct up to 5000 10A tests
▶ Rugged, double insulated watertight case

APPLICATIONS

▶ Aerospace metallic coating resistance measurement
▶ Bonding resistance measurement of motors and transformers
▶ Bonding verification on earth/ground systems
▶ Weld joint integrity verification
▶ Contact resistance measurement of breakers and switchgear
▶ Aircraft and rail bonding checks
▶ Wire to terminal connections and resistance checks
▶ Battery strap resistance checks
▶ Cable joint and bus bar connection checks
▶ Mechanical bond tests

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AEMC® INSTRUMENTS

SPECIFICATIONS

ELECTRICAL

Range	5.000mΩ	25.000mΩ	250.00mΩ	2500.0mΩ	25.000Ω	250.00Ω	2500.0Ω
Accuracy	0.15% of Reading +1µΩ	0.05% of Reading +3µΩ	0.05% of Reading +30µΩ	0.05% of Reading +0.3mΩ	0.05% of Reading +3mΩ	0.05% of Reading +30mΩ	0.05% of Reading +300mΩ
Resolution	0.1µΩ	1µΩ	10µΩ	0.1mΩ	1mΩ	10mΩ	100mΩ
Test Current	10A			1A	100mA	10mA	1mA
Measurement Mode	Selectable: Inductive (continuous test), Resistive (instantaneous test) or Auto (multiple tests)						
Power Source	Rechargeable 6V, 8.5Ah NiMH batteries						
Battery Life	Approximately 5000, 10A tests						
Battery Charging	Internal 120/240Vac, 45/400Hz line voltage						
Power Management	Display powers down after 1, 5 or 10 minutes of inactivity (operator selectable)						
Low Battery Indication	– + displays when battery needs changing						
Memory	Stores up to 1500 test results. Data in memory can be reviewed on the instrument display, on a PC or via direct printout						
Communication Software	DataView® software						

MECHANICAL

Dimensions	10.63 x 9.84 x 7.09” (270 x 250 x 180mm)
Weight	8.1 lbs (3.69kg)
Index of Protection	IP53 (case open); IP64 (case closed)
Color	Safety yellow case; gray faceplate UL94 V-O

DISPLAY

Display Type	Large 50,000-count digital
Size	4 x 2.25" (102 x 57mm)
Blacklight	Blue electroluminescent

COMMUNICATION

Interface Port	RS-232

ENVIRONMENTAL

Operating Temperature	14° to 132°F (-10° to 55°C); 10 to 80% RH (non-condensing)
Storage Temperature	-40° to 140°F (-40° to 60°C); 10 to 80% RH (non-condensing)

SAFETY

Safety Rating	EN 61010-1, 50V CAT III
Double Insulation	Yes
CE Mark	Yes
Catalog No.	2129.84

1017.84 (10ft) 2118.70 (20ft)
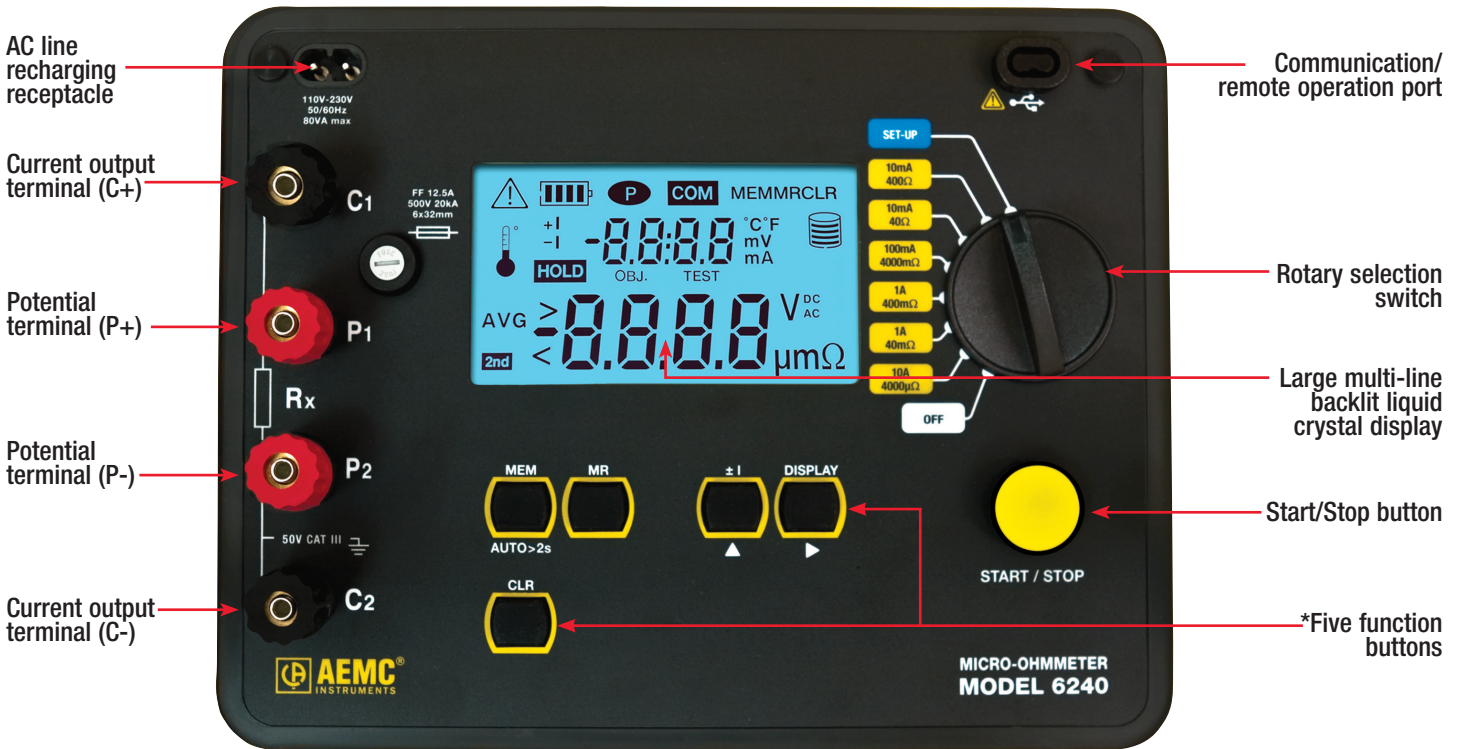2118.73 (10ft) 2118.74 (20ft)
2118.84 2118.85
2118.77 2118.78
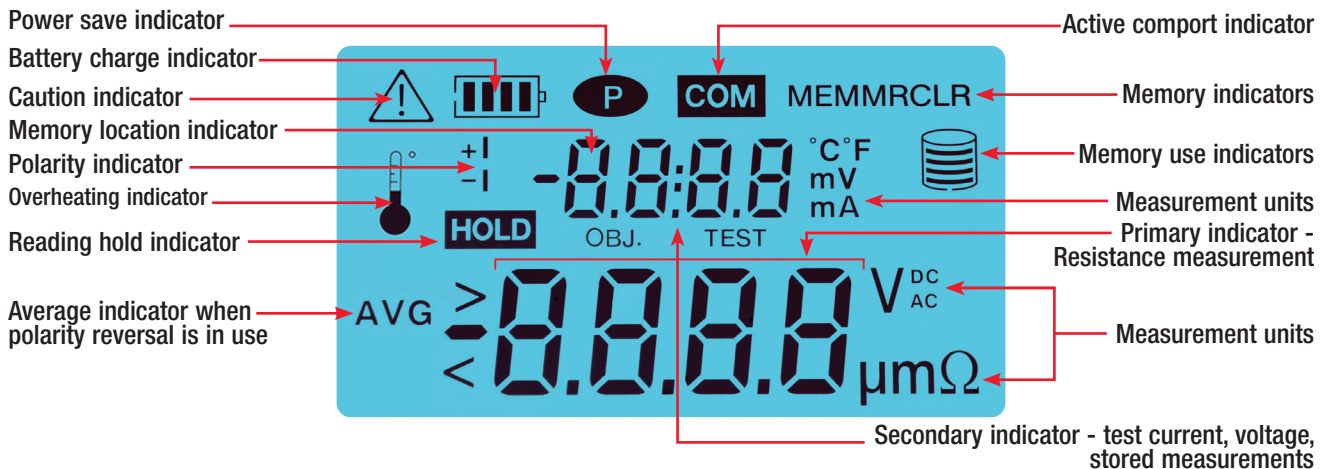2118.79 (10ft) 2118.80 (20ft)
2129.95 2129.96 (w/ cable)

Model 6240

Construction

AC line recharging receptacle

Current output terminal (C+)

Potential terminal (P+)

Potential terminal (P-)

Current output terminal (C-)

Communication/ remote operation port

Rotary selection switch

Large multi-line backlit liquid crystal display

Start/Stop button

*Five function buttons

* Function buttons allow direct access to data storage and retrieval, polarity reversal, auto/manual measurement and displayed values.
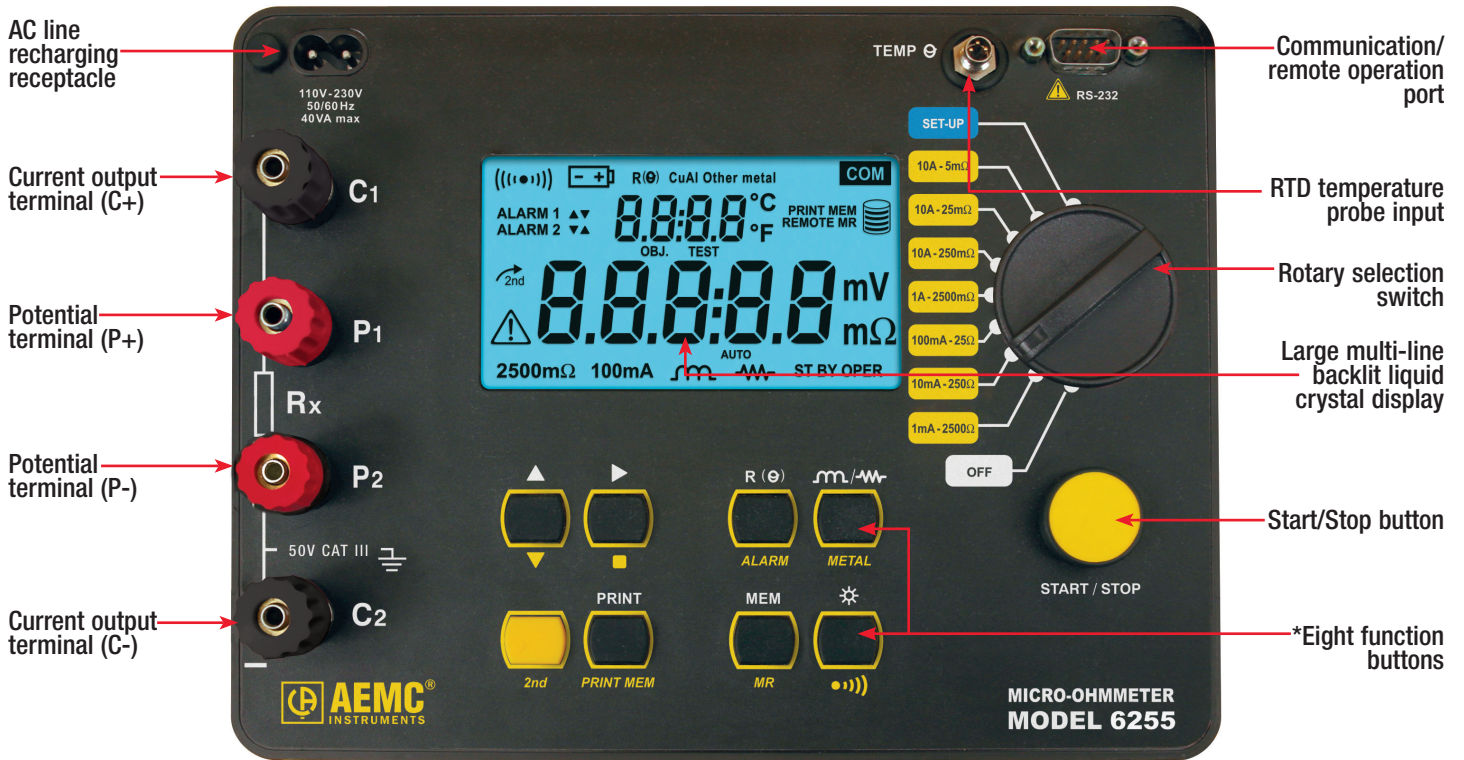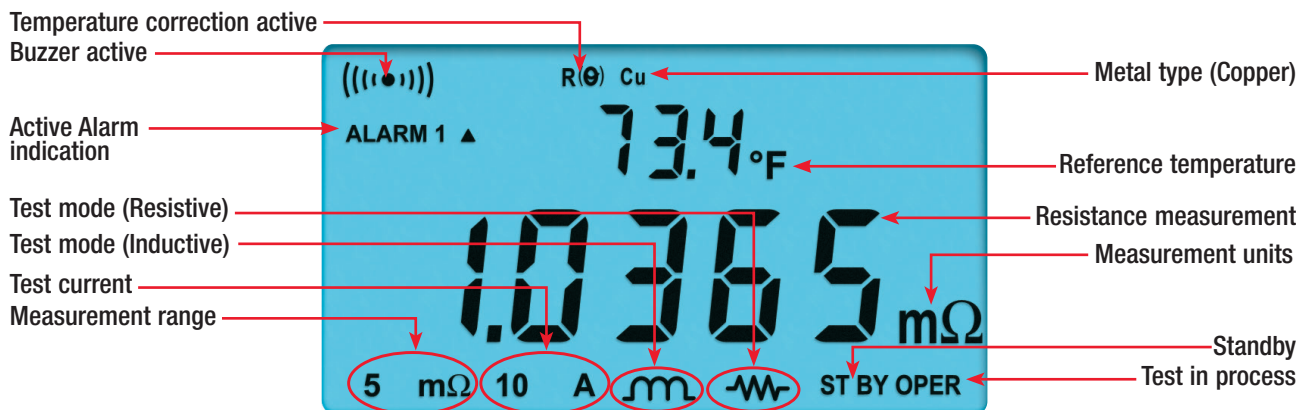
Functional Display

Power save indicator

Battery charge indicator

Caution indicator

Memory location indicator

Polarity indicator

Overheating indicator

Reading hold indicator

Average indicator when polarity reversal is in use

Active comport indicator

Memory indicators

Memory use indicators

Measurement units

Primary indicator - Resistance measurement

Measurement units

Secondary indicator - test current, voltage, stored measurements

Technical Assistance (800) 343-1391

AEMC® INSTRUMENTS

Construction

AC line recharging receptacle

110V-230V
50/60 Hz
40VA max

Current output terminal (C+) — C₁

Potential terminal (P+) — P₁

Rx

Potential terminal (P-) — P₂

50V CAT III

Current output terminal (C-) — C₂

AEMC® INSTRUMENTS

TEMP

RS-232

Communication/ remote operation port

RTD temperature probe input

SET-UP
10A - 5mΩ
10A - 25mΩ
10A - 250mΩ
1A - 2500mΩ
100mA - 25Ω
10mA - 250Ω
1mA - 2500Ω
OFF

Rotary selection switch

Large multi-line backlit liquid crystal display

Start/Stop button

START / STOP

*Eight function buttons

MICRO-OHMMETER
MODEL 6255

* Function buttons allow direct access to data storage and retrieval, polarity reversal, auto/manual measurement and displayed values.

Functional Display

Temperature correction active
Buzzer active

Active Alarm indication

Test mode (Resistive)
Test mode (Inductive)
Test current
Measurement range

R(Θ) Cu

ALARM 1 ▲

73.4°F

1.0365 mΩ

5 mΩ   10 A   ST BY OPER

Metal type (Copper)

Reference temperature

Resistance measurement

Measurement units

Standby
Test in process

MODEL 6292

FEATURES

▶ Advanced cooling system allows continuous testing at 100A or below and up to 120 seconds at 200A
▶ Incorporates True DC high output with minimum, near zero, ripple lower than 2% of full range.
▶ Allows multiple sequential tests
▶ Programmable test currents from 5 to 200A
▶ Measures single or both sides grounded systems
▶ Direct viewing of stored tests on the display
▶ Accurately measures low contact resistances from 0.1µΩ to 1Ω
▶ Resolution of 0.1µΩ
▶ Large LCD digital display, available in four languages
▶ Stores up to 8000 test results
▶ USB communication interface
▶ Direct printout using DataView® software and a PC
▶ Rugged, light-weight and water-resistant case

APPLICATIONS

▶ Test switchgear contact resistance
▶ Test circuit breaker contact resistance
▶ Test air frame bonding
▶ Test rail bonding
▶ Test pipeline bonding
▶ Test large transformers

Product 2129.83 Includes
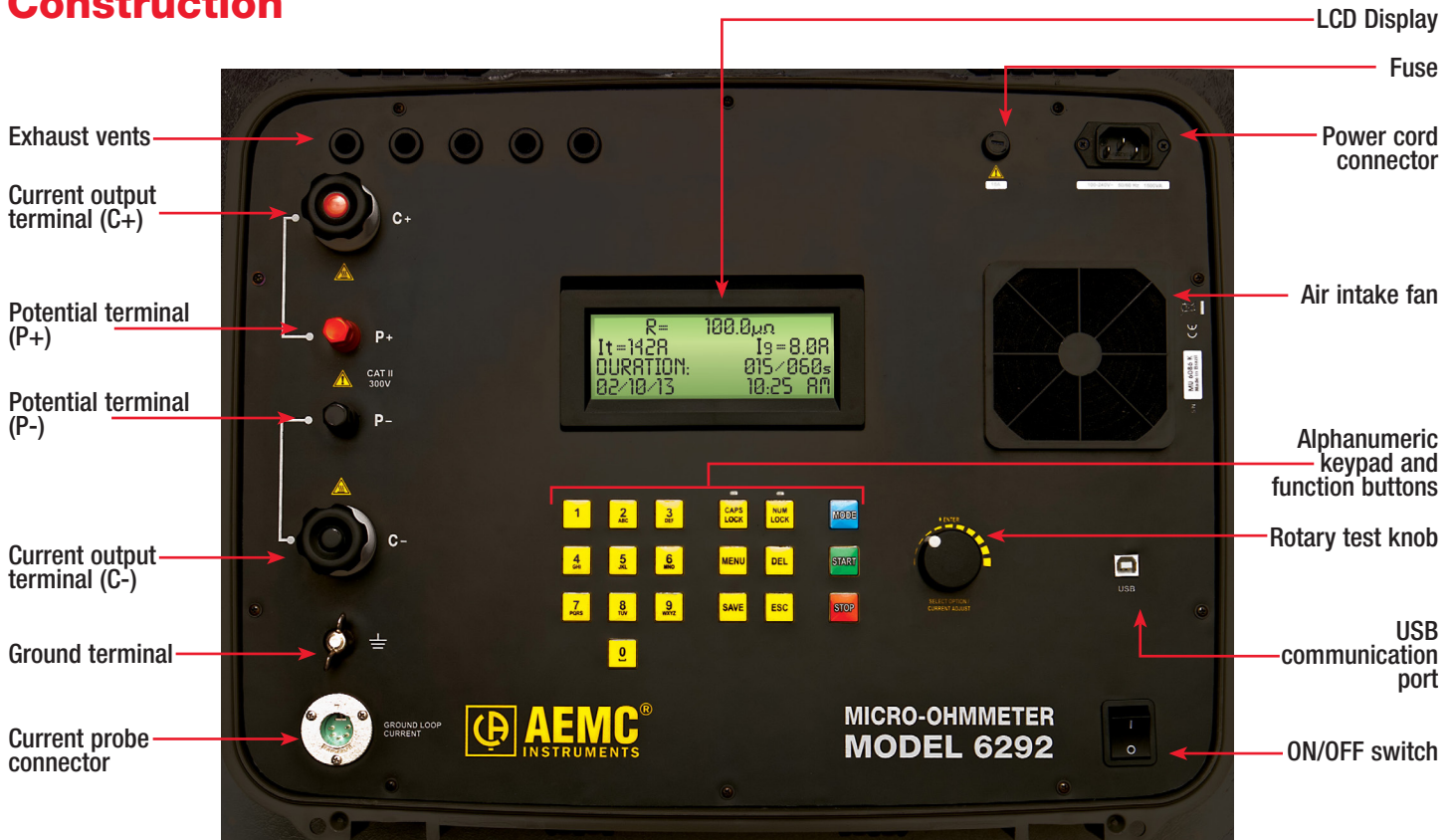
• Accessory Bag
• 2 25ft Kelvin Test Leads w/ Hippo Clamp (200A)
• 1 Green Ground Lead w/ Clamp
• USB Cable
• Power Cord
• User manual
• DataView® software

Accessories/Replacement Parts

• 2129.72   Lead - Set of 2 25ft Kelvin Leads with Hippo Clamp (200A)
• 2129.73   Lead - Set of 2 50ft Kelvin Leads with Hippo Clamp (200A)
• 2129.86   Current Probe Model MR6292
• 2129.88   Lead - 10ft Eartth/Ground w/ attached Clamp
• 5000.40   110V US Power Cord

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AEMC® INSTRUMENTS

ELECTRICAL

Test Current Range	Programmable from 5 to 200A (True DC)
Resistance Range	0.1µΩ to 2mΩ; 2 to 200mΩ; 200mΩ to 1Ω
Accuracy	± 1% of reading from 50µΩ to 1Ω
Resolution 0.1µΩ to 2mΩ 2 to 200mΩ 200mΩ to 1Ω	0.1µΩ (200A max) 10µΩ (25A max at 200mΩ) 1mΩ (5A max at 1Ω)
Output Voltage	100Vᴀᴄ: 4.2V @ 200A 220Vᴀᴄ: 8.6V @ 200A
Max. Load Resistance	100Vᴀᴄ: 20mΩ @ 200A 220Vᴀᴄ: 42mΩ @ 200A
Measurement Method	Four-terminal, Kelvin-type
Test Mode	Normal or both sides grounded (BSG)*
Adjustable Test Time	5 to 120 seconds at 200A, unlimited at 100A or below
Memory	Stores up to 8000 measurements
Communication Software	DataView® software
Power Supply	100 to 240Vᴀᴄ, 50/60Hz

MECHANICAL

Dimensions	19.8 x 15.5 x 7.5" (502 x 394 x 190mm)
Weight	24.25 lbs (11kg) approx

DISPLAY

Display Type	4 line x 20 characters per line LCD
Size	4.75 x 2.75" (121 x 70mm)
Backlight	adjustable

COMMUNICATION

Interface port	USB 2.0

ENVIRONMENTAL

Operating Temperature	32° to 122°F (0° to 50°C)
Storage Temperature	14° to 158°F (-10° to 70°C)
Humidity	95% RH (non-condensing)

SAFETY

Safety Rating	IEC61010-1
Protection	Protections against over current, short circuit, overheating and over voltage at output terminals
Environmental Protection	IP54 with closed lid
Test w/ Both Sides Grounded	Yes
CE Mark	Yes

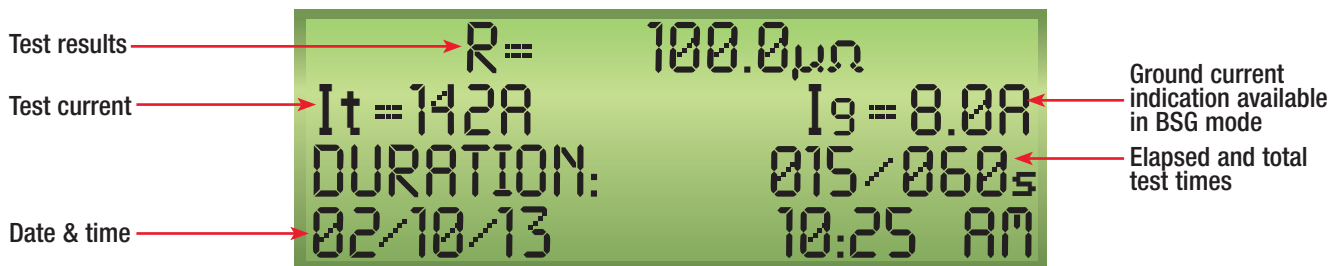*BSG Test Mode requires optional Current Probe Model MR6292 (Cat. #2129.86)

2129.86   2129.72 (25ft)
2129.73 (50ft)   2129.88   5000.40

Model 6292

Construction

Exhaust vents

Current output terminal (C+)

Potential terminal (P+)

Potential terminal (P-)

Current output terminal (C-)

Ground terminal

Current probe connector

LCD Display

Fuse

Power cord connector

Air intake fan

Alphanumeric keypad and function buttons

Rotary test knob

USB communication port

ON/OFF switch

MICRO-OHMMETER
MODEL 6292

Functional Display

Test results

Test current

Date & time

Ground current indication available in BSG mode

Elapsed and total test times

```
R=        100.0µΩ
It=142A          Ig=8.0A
DURATION:        015/060s
02/10/13          10:25 AM
```

AEMC®
INSTRUMENTS

DataView®

FEATURES

▶ Configure instrument from your PC

▶ Customize views and templates to your exact needs

▶ Create and store a library of configurations that can be used with the Models 6240, 6255, and 6292 as needed

▶ Display test results

▶ Print reports using standard included templates or custom templates you design
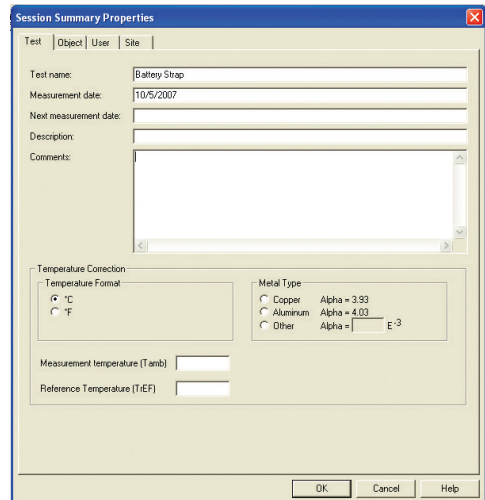
▶ Upload stored test results to your PC
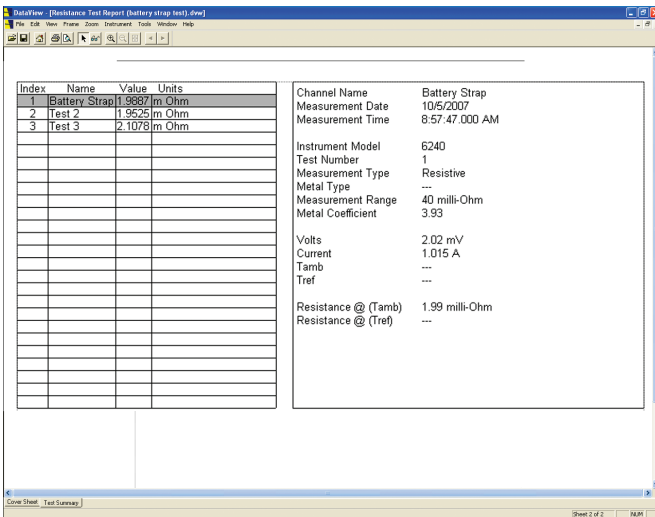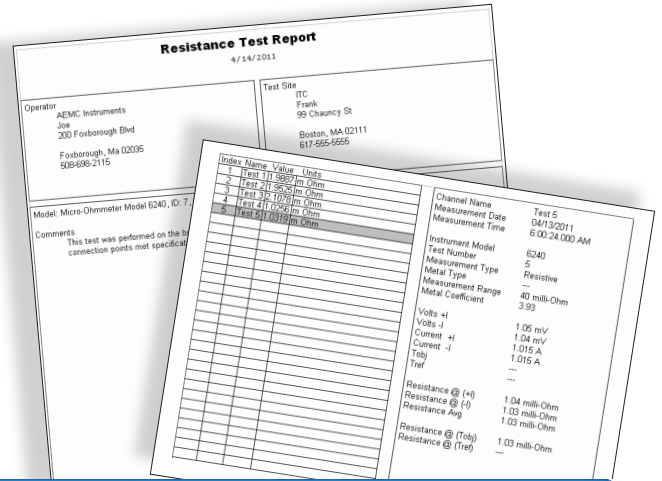
Statistical presentation of measurements
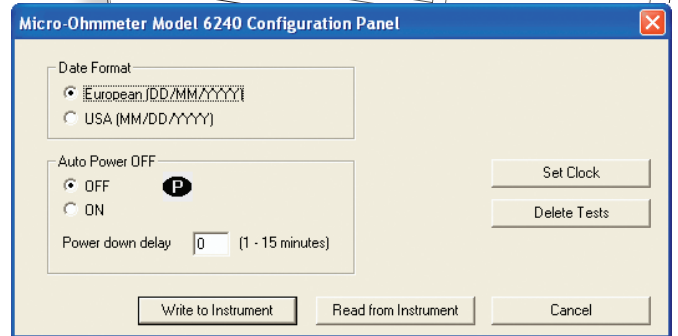
All set up functions available from one screen
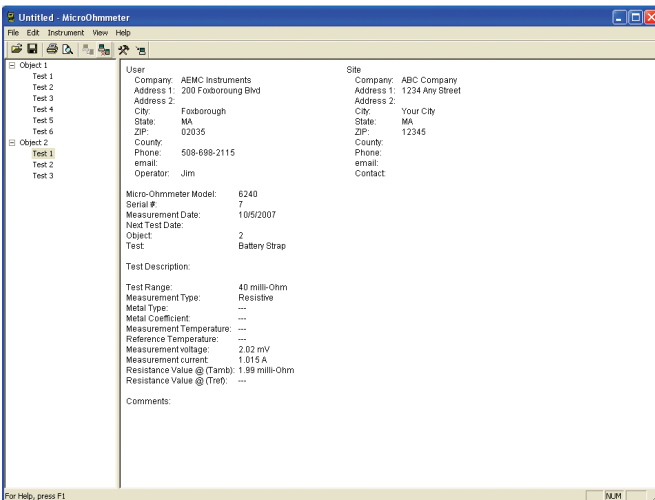
Clean, easy-to-read report of test results

Easily documents statistics about user and test site to be stored with the data

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United States & Canada

**Chauvin Arnoux®, Inc.
d.b.a. AEMC® Instruments**

15 Faraday Drive
Dover, NH 03820 USA
Tel (603) 749-6434
Fax (603) 742-2346

Customer Support
Place orders, obtain prices
and delivery options

(800) 343-1391

customerservice@aemc.com

Sales & Marketing Department
sales@aemc.com
marketing@aemc.com

United States & Canada *(continued)*

Repair & Calibration Service
repair@aemc.com

**Technical & Product
Application Support**

(800) 343-1391

techsupport@aemc.com

South America, Central America, Mexico & the Caribbean

**Chauvin Arnoux®, Inc.
d.b.a. AEMC® Instruments**

15 Faraday Drive
Dover, NH 03820 USA

export@aemc.com

Australia & New Zealand

**Chauvin Arnoux®, Inc.
d.b.a. AEMC® Instruments**

15 Faraday Drive
Dover, NH 03820 USA

export@aemc.com

All other countries
Chauvin Arnoux®

12-16 Rue Sarah Bernhardt
92600 Asnières-Sur-Seine, FR
Tel +1 33 1 44 85 45 85
Fax +1 33 1 46 27 73 89

info@chauvin-arnoux.com
www.chauvin-arnoux.com

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