

TEST & MEASUREMENT –

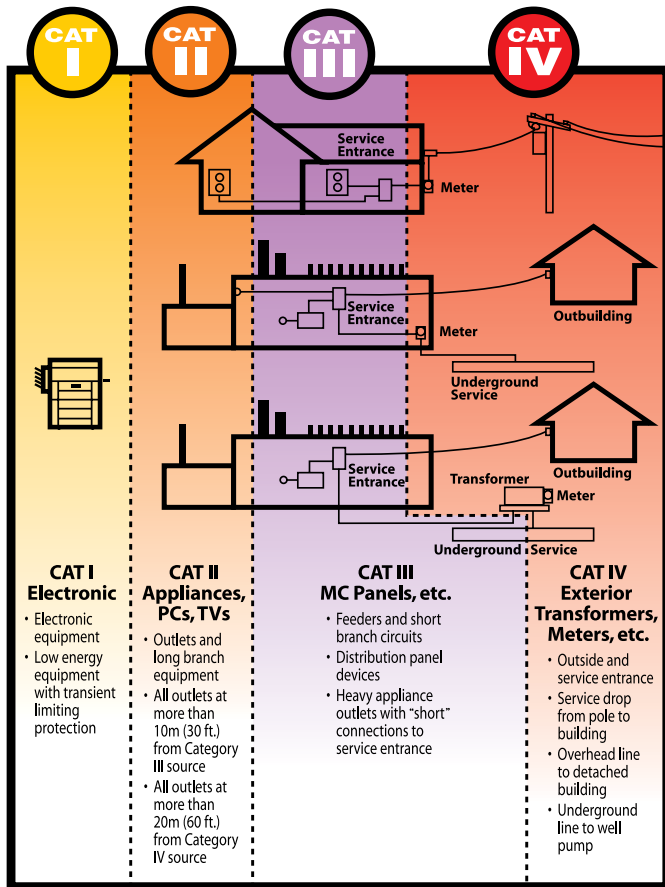
LOW VOLTAGE

Accurate. Reliable. Expect nothing but the best from Greenlee Test and Measurement equipment. Backed by a lifetime limited warranty, Greenlee Test and Measurement Tools are designed to last and will help you get the job done confidently.

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UNDERSTANDING CATEGORY RATINGS



Get the Right Protection for the Job.

Greenlee's independent testing of select test and measurement products to meet the International Electrotechnical Commission "IEC" standards for electrical test and measurement equipment should assure you these devices can help protect from the risks of shock caused by transient high-voltage spikes in electrical distribution systems. The IEC has established a standard for test and measurement equipment overvoltage protection capacities. These established overvoltage protections can be further divided into categories. Wherever you need overvoltage protection, you should choose at least the minimum category rating appropriate to the type of work you expect to be doing.

Measurement Category I (CAT I) – is for measurements performed on low voltage circuits not directly connected to mains.

Measurement Category II (CAT II) – is for measurements performed on fixed or non-fixed local level power devices like household lighting, appliances, or office equipment. Category II equipment may also be used in Category I applications.

Measurement Category III (CAT III) – is for measurements performed at the distribution level on equipment like primary feeders or branch circuits. These circuits are usually separated from Category IV (whether utility service or other high-voltage source) by a minimum of one level of transformer isolation. Category III may also be used in Category II and Category I applications.

Measurement Category IV (CAT IV) – is for measurements performed at the primary or utility supply level; Category IV may also be used in Category III, Category II and Category I applications.

ELECTRICAL TESTERS

COMPARISON GUIDE

FEATURE	GT-65	GT-95	GT-16	TR-12A	GT-12A	GT-10GFI	GT-10
DCV (V max)	1000	1000	–	–	–	–	–
ACV (V max)	1000	1000	1000	1000	1000	120	120
Continuity and beeper	X	X	–	–	–	–	–
Non-contact voltage detection	X	X	X	X	X	–	–
Data hold	X	X	–	–	–	–	–
GFCI test	–	X	–	–	–	X	–
Adjustable sensitivity	–	–	X	–	–	–	–
Display type	LED	Digital/LED	LED	–	–	LED	LED
Measurement Category	IV, 600V III, 1000V	IV, 600V III, 1000V	IV, 1000V	IV, 1000V	IV, 1000V	–	–
UL/cUL	X	X	X	X	X	X	X
CE	X	X	X	X	X	X	X



GT-65



GT-95



Voltage Testers

GT-65 FEATURES

- AC/DC voltage and polarity measurement
- Overvoltage warning gives user visual notification that voltage levels have exceeded 1000V AC/ 380V DC
- Auto-hold automatically activates when tester is removed from voltage reading
- Continuity test and single-probe detection of live conductors for added flexibility
- Non-contact voltage detection
- Visual and audible continuity
- Accessories included: (2) 1.5V AAA batteries, test leads and carrying case

GT-95 FEATURES

- LCD and dual color LEDs for convenience
- Selectable SHAKER feature when measuring AC voltage
- GFCI test capability eliminates the need for additional testers

SPECIFICATIONS

Voltage Range	19 to 1000V AC, 5 to 380V DC
Continuity Verification	0 to 50 kΩ
Frequency	DC, 45-65Hz
GFCI Test Current (GT95 Only)	7.5 mA nominal at 120V AC
Measurement Category	CAT IV, 600V; CAT III, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
GT-65	783310090250	Voltage Tester
R GT-95	783310090274	Voltage Tester, LCD & GFCI
R TSG-3	783310120346	Sure-Grip Test Leads



GT-16



Adjustable Non-Contact Voltage Detector

- Adjustable sensitivity
- Detects AC voltage without touching the bare conductor
- Audible and visual alert when voltage is present
- Adjustable for use on power wiring plus lighting, thermostats and other low voltage circuits
- Used to detect voltage in outlets, lighting fixtures, wires and cables
- Finds breaks in wires
- Identifies hot and neutral conductors
- Low battery indicator

SPECIFICATIONS

Voltage Range	5 – 1000V AC
Frequency	50 – 500Hz
Measurement Category	CAT IV, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
GT-16	783310127277	Adjustable Non-Contact Voltage Detector



TR-12A



Self-Testing Non-Contact Voltage Detector

- Detects voltage in tamper-resistant and conventional 15A and 20A, 120V outlets
- Patented automatic self-test verifies the integrity of the unit
- Audible and visual alert when voltage is present
- Silent-mode feature for use in quiet settings
- Non-contact voltage detection
- Use to detect voltage in outlets, lighting fixtures, circuit breakers, wires, and cables or to find a break in a wire
- Automatically turns off after 5 minutes of non-use to conserve battery life
- Low battery indicator

SPECIFICATIONS

Voltage Range	50 – 1000V AC
Frequency	50 – 500Hz
Measurement Category	CAT IV, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
TR-12A	783310027232	Self-Testing Non-Contact Voltage Detector



GT-12A

Non-Contact Voltage Detector

- Single button operation
- Patented automatic self-test verifies the integrity of the unit
- Audible and visual alert when voltage is present
- Automatically shuts off after 5 minutes of inactivity to extend battery life
- Silent-mode for use in quiet areas
- Non-contact voltage detection
- Low battery indicator

SPECIFICATIONS

Voltage Range	50 – 1000V AC
Frequency	50 – 500Hz
Measurement Category	CAT IV, 1000V



CAT. NO.	UPC NO.	DESCRIPTION
GT-12A	783310008903	Non-Contact Voltage Detector



GT-10



GT-10GFI

Polarity Cubes

- Use to troubleshoot 120V AC grounded outlets and test GFCI receptacles (GT-10GFI only)
- Light sequence indicates correct/incorrect wiring

CAT. NO.	UPC NO.	DESCRIPTION
GT-10	783310121244	Cube, Polarity
GT-10GFI	783310121251	Tester, Circuit GFI



DIGITAL MULTIMETERS

Comparison Guide

FEATURE	DM-860A	DM-830A	DM-820A	DM-810A	DM-510A	DM-210A	DM-200A
Display counts	50,000/500,000	10,000	10,000	10,000	6,000	6,000	6,000
True RMS	AC+DC	AC+DC	X	X	X	–	–
ACV (V max)	1000	1000	1000	1000	1000	1000	1000
Maximum resolution (µV)	100	10	10	10	10	10	10
Best accuracy (%)	0.3	0.5	0.5	0.5	1.0	1.0	1.0
DCV (V max)	1000	1000	1000	1000	1000	1000	1000
Maximum resolution (µV)	1	10	10	10	10	10	10
Best accuracy (%)	0.02	0.06	0.06	0.06	0.2	0.2	0.2
ACA (A max)	10	10	10	10	8	8	8
Maximum resolution (µA)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Best accuracy (%)	0.5	0.6	0.6	0.6	1.0	1.0	1.0
DCA (A max)	10	10	10	10	8	8	8
Maximum resolution (µA)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Best accuracy (%)	0.1	0.2	0.2	0.2	0.5	0.5	0.5
Resistance (MΩ)	50	60	60	60	60	60	60
Maximum resolution (mΩ)	100	100	100	100	100	100	100
Best accuracy (%)	0.07	0.1	0.1	0.1	0.5	0.5	0.5
Conductance	X	X	X	–	–	–	–
Continuity and beeper	X	X	X	X	X	X	X
Diode Test	X	X	X	X	X	X	X
Capacitance	X	X	X	X	X	X	
Frequency	X	X	X	X	X	X	X
Frequency Response (Hz)	20-5000	50-20,000	50-20,000	50-20,000	50-400	50-400	50-400
Temperature Measurement	Dual	Dual	Single		Single	Single	
Display Type	Dual Digital	Dual Digital	Dual Digital	Dual Digital	Digital	Digital	Digital
Backlight	X	X	X	X	X	X	X
Display update X/sec	5	5	5	5	5	5	5
Analog bar graph segments	41	41	41	41	24	24	24
Analog update X/sec	60	60	60	60	40	40	40
Computer Interface	USB	USB	USB	USB	USB, RS-232	USB, RS-232	USB, RS-232
Auto and manual ranging	X	X	X	X	X	X	X
Auto Power Off	X	X	X	X	X	X	X
Non-Contact Voltage Detection	–	X	X	–	X	X	X
Low Impedance AutoCheck™ mode	–	X	–	–	X	–	–
Beep-Jack™ Input error warning	X	X	X	X	X	X	X
Peak (crest) Hold - Max, Min	X	X	X	–	X	–	–
Data Hold	X	X	X	X	X	X	X
Max/Min/Avg	X	X	X	–	max, min	–	–
Relative offset mode (Δ)	X	X	X	X	X	X	X
Process loop measurement	X	–	–	–	–	–	–
Software interface compatibility (9U)	X	X	X	X	–	–	–
Software interface compatibility (2U)	–	–	–	–	X	X	X
Duty cycle	X	X	X	X	–	–	–
VFD (Variable Frequency Drive) ACV & Hz	X	–	–	–	–	–	–
Measurement Category Rating	IV, 1000V	IV, 1000V	IV, 1000V	IV, 1000V	IV, 300V III, 600V II, 1000V	IV, 300V III, 600V II, 1000V	IV, 300V III, 600V II, 1000V
UL or ETL	X	X	X	X	X	X	X
cUL, cETL or CSA	X	X	X	X	X	X	X
CE	X	X	X	X	X	X	X

DIGITAL MULTIMETERS

Comparison Guide (Cont'd)

FEATURE	DM-65	DM-45	DM-25	PDMM-20
Display counts	6,000	4,000	2,000	6,000
True RMS	–	–	–	–
ACV (V max)	1000	600	600	450
Maximum resolution (µV)	1000	1000	1,000,000	1000
Best accuracy (%)	0.8	0.8	1.2	1.5
DCV (V max)	1000	600	600	450
Maximum resolution (µV)	100	100	10,000	1000
Best accuracy (%)	0.8	0.8	0.8	0.5
ACA (A max)	10	10	–	–
Maximum resolution (µA)	1.0	1.0	–	–
Best accuracy (%)	1.8	1.8	–	–
DCA (A max)	10	10	–	–
Maximum resolution (µA)	0.1	0.1	–	–
Best accuracy (%)	1.0	1.0	–	–
Resistance (MΩ)	60	40	2	6
Maximum resolution (mΩ)	100	100	100	1000
Best accuracy (%)	1.0	1.0	1.0	1.0
Conductance	–	–	–	–
Continuity and beeper	X	X	X	X
Diode Test	X	X	X	–
Capacitance	X	X	–	X
Frequency	X	X	–	X
Frequency Response (Hz)	40-400	40-400	40-400	50-60
Temperature Measurement	Single	Single	–	–
Display Type	Digital	Digital	Digital	Digital
Backlight	X	X	–	–
Display update X/sec	3	3	2.5	5
Analog bar graph segments	61	–	–	–
Analog update X/sec	3	–	–	–
Computer interface	–	–	–	–
Auto and manual ranging	X	X	–	Auto
Auto Power Off	X	X	–	X
Non-Contact Voltage Detection	–	–	–	X
Low Impedance AutoCheck™ mode	–	–	–	X
Beep-Jack™ Input error warning	–	–	–	–
Peak (crest) Hold - Max, Min	–	–	–	–
Data Hold	X	X	–	–
Max/Min/Avg	–	–	–	–
Relative offset mode (Δ)	X	X	–	–
Process loop measurement	–	–	–	–
Software interface compatibility (9U)	–	–	–	–
Software interface compatibility (2U)	–	–	–	–
Duty cycle	X	X	–	–
VFD (Variable Frequency Drive) ACV & Hz	–	–	–	–
Measurement Category Rating	IV, 600V III, 1000V	III, 600V	III, 600V	III, 300V II, 450V
UL or ETL	X	X	X	X
cUL, cETL or CSA	X	X	X	X
CE	X	X	X	X



DM-860A





ESM™ 500,000-Count Digital Multimeter

- AC+DC True RMS, 50,000-count backlit display for greater accuracy, 500,000 count available in DC voltage mode
- VFD (variable frequency drive) voltage and frequency functions for accurate readings on noisy drive waveforms
- Dual temperature measurement up to 1832°F/1000°C using type K thermocouples
- 41-segment analog bar graph makes it easy to view quick changes
- Beep-Jack™ audible and visual input alert helps avoid blown fuses or damage to meter
- Record max, min, avg., and max-min and data hold
- Crest capture (peak hold) max and min readings
- Relative offset display mode makes monitoring relative measurement changes simple
- Performs resistance, conductance, frequency, duty cycle, temperature and capacitance measurements, plus diode and continuity tests
- Intelligent Auto Power Off conserves battery life but will not turn meter off during measurements
- Wide AC bandwidth – to 100 kHz for voltage and 20 kHz for current
- USB Interface using optional DMSC-9U cable and software allows connection to a PC for extended measurement capability
- Accessories included: (1) 9V battery, bead temperature probe (400°F/ 204°C max.), test leads, protective boot and carrying case



SPECIFICATIONS

Voltage Measurement	500.00mV; 5.0000, 50.000, 500.00, 1000.0V
DC Voltage Measurement	500,000 counts mode: 500.00mV; 5.0000, 50.000, 500.00, 1000.0V
Amperage Measurement	500.00, 5000.0µA; 50.000, 500.00mA; 5.0000, 10.000A
Resistance	500.00Ω; 5.0000, 50.000, 500.00kΩ; 5.0000, 50.000MΩ
Conductance	99.99nS
Capacitance	50.00; 500.0nF; 5.000, 50.00, 500.0µF, 5.000, 25.00mF
Frequency	5.000Hz – 200.0kHz sine wave; 5.000Hz – 2.0000MHz logic level square wave
Temperature	K type, -58°F to 1832.0°F (-50°C to 1000.0°C)
Measurement Category	CAT IV, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
DM-860A	783310129387	500,000-Count Digital Multimeter, 1000V, 10A
DM-860A-C*	783310020691	500,000-Count Digital Multimeter, 1000V, 10A, Calibrated
 TC-20	783310075356	Carrying Case
 TSG-3	783310120346	Sure-Grip Test Leads
 TPB	783310075929	Bead Temperature Probe
 DMSC-9U	783310357735	For Interface kit, DM-800A Series Digital Multimeters

*Includes Certificate of Calibration

TEST & MEASUREMENT – LOW VOLTAGE



DM-810A



DM-820A

FEATURING:



DM-830A



ESM™ Series 10,000-Count Digital Multimeters

DM-810A FEATURES:

- Backlit LCD with dual 10,000 count displays
- BeepJack™ warns when test leads are incorrectly inserted in current measurement terminals
- True RMS for no-compromise accuracy
- Measures voltage, current, resistance, capacitance and frequency
- Tests continuity and diodes
- Automatic and manual range selection
- Relative offset mode to see changes in measurements
- Data hold
- Use optional USB interface DMSC-9U for direct-to-PC logging

DM-820A HAS ALL DM-810A FEATURES PLUS:

- Crest capture (peak hold) plus recording of max, min, max-min and average
- Two voltage detection modes – non-contact or using a single test lead
- One temperature measurement using a type K thermocouple
- Conductance measurement

DM-830A HAS ALL DM-820A FEATURES PLUS:

- AC+DC True RMS gives accurate readings on complex waveforms
- Low impedance AutoCheck™ mode – automatically selects AC or DC volts, resistance or continuity. Low impedance masks “ghost” voltage pickup
- dBm function with 20 selectable reference impedance values

ACCESSORIES INCLUDED:

- (1) 9V battery, bead temperature probe (DM-820A, DM-830A only, 400°F/204°C max), test leads, protective boot and carrying case.

SPECIFICATIONS

Voltage Measurement	60.00, 600.0 mV; 9.999, 99.99, 999.9V
Amperage Measurement	600.0, 6000µA; 60.00, 600.0mA; 6.000, 10.00A
Resistance	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
Conductance	99.99nS
Capacitance	60.00, 600.0nF; 6.000, 60.00, 600.0µF; 6.000, 25.00 mF
Frequency	15.00Hz – 50.00kHz sine wave; 5.00Hz – 1.000MHz logic level square wave
Temperature	K type, -58 to 1832 °F (-50 to 1000 °C)
Measurement Category	CAT IV, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
DM-810A	783310087434	10,000-Count Digital Multimeter, 1000V, 10A
DM-810A-C*	783310357599	10,000-Count Digital Multimeter, 1000V, 10A, Calibrated
DM-820A	783310087441	10,000-Count Digital Multimeter, 1000V, 10A
DM-820A-C*	783310357605	10,000-Count Digital Multimeter, 1000V, 10A, Calibrated
DM-830A	783310087458	10,000-Count Digital Multimeter, 1000V, 10A
DM-830A-C*	783310357704	10,000-Count Digital Multimeter, 1000V, 10A, Calibrated
R TC-20	783310075356	Carrying Case
R TSG-3	783310120346	Sure-Grip Test Leads
R TPB	783310075929	Bead Temperature Probe (included with DM-820A, DM-830A)

*Includes Certificate of Calibration



DM-200A



DM-210A

FEATURING:



DM-510A

ESM™ Series 6,000-Count Digital Multimeters

DM-200A FEATURES:

- Measures voltage, current, resistance and frequency
- Tests continuity and diodes
- Backlit LCD with 6,000 count display
- Two voltage detection modes – non-contact or using a single test lead
- BeepJack™ warns when test leads are incorrectly inserted in current measurement terminals
- Automatic and manual range selection
- Relative offset mode to see changes in measurements
- Data hold
- Use optional USB / RS-232 interface DMSC-2U for direct-to-PC logging

DM-210A HAS ALL DM-200A FEATURES PLUS:

- Measures capacitance
- Measures temperature using a type K thermocouple

DM-510A HAS ALL DM-210 FEATURES PLUS:


- True RMS for no-compromise accuracy
- Crest capture (peak hold) plus recording of max, min, max-min and average
- Low impedance AutoCheck™ mode – automatically selects AC or DC volts, resistance or continuity and low impedance masks “ghost” voltage pickup

ACCESSORIES INCLUDED:

- (2) 1.5V AAA batteries, bead temperature probe (DM-210A, DM-510A only, 400°F/204°C max), test leads and protective boot.

SPECIFICATIONS

Voltage Measurement	60.00, 600.0 mV; 6.000, 60.00, 600.0, 1000V
Amperage Measurement	600.0, 6000µA; 60.00, 600.0mA; 6.000, 8.00A
Resistance	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
Capacitance	60.00, 600.0nF; 6.000, 60.00, 600.0, 3000µF
Frequency	10Hz – 50kHz sine wave; 5.0 – 1.000MHz logic level square wave
Temperature	K type, -58 to 1832 °F (-50 to 1000 °C)
Measurement Category	CAT IV 300V; CAT III 600V; CAT II 1000V

CAT. NO.	UPC NO.	DESCRIPTION
DM-200A	783310087403	6,000-Count Digital Multimeter, 1000V, 8A
DM-200A-C*	783310357568	6,000-Count Digital Multimeter, 1000V, 8A, Calibrated
DM-210A	783310087410	6,000-Count Digital Multimeter, 1000V, 8A
DM-210A-C*	783310357575	6,000-Count Digital Multimeter, 1000V, 8A, Calibrated
DM-510A	783310087427	6,000-Count Digital Multimeter, 1000V, 8A
DM-510A-C*	783310357582	6,000-Count Digital Multimeter, 1000V, 8A, Calibrated
 TSG-3	783310120346	Sure-Grip Test Leads

*Includes Certificate of Calibration





DM-65



Digital Multimeter

- Measures AC/DC voltage, AC/DC current, resistance, temperature, frequency, duty cycle and capacitance
- Diode and audible continuity tests
- Relative offset mode to see changes in measurements
- Data hold

SPECIFICATIONS

Amperage Measurement	600.0, 6000µA; 60.00, 600.0 mA; 6.000, 10.00 A
Voltage Measurement	6.000, 60.00, 600.0, 1000V AC; 600.0 mV; 6.000, 60.00, 600.0, 1000V DC
Display	LCD, 6000 count with bar graph
Resistance Measurement	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
Frequency Measurement	9.999Hz to 9.999MHz
Temperature Measurement	-4 to 1832 °F (-20 to 1000°C)
Capacitance Measurement	40.00, 400.0nF; 4.000, 40.00, 400.0, 4000µF
Measurement Category	CAT IV, 600V; CAT III, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
DM-65	783310003397	4,000-Count Digital Multimeter, 1000V, 10A
TSG-3	783310120346	Test Leads



DM-45



Digital Multimeter

- Measures AC/DC voltage, AC/DC current, resistance, temperature, frequency, duty cycle and capacitance
- Diode and audible continuity tests
- Relative offset mode to see changes in measurements
- Data hold

SPECIFICATIONS

Amperage Measurement	400.0, 4000µA; 40.00, 400.0 mA; 4.000, 10.00 A
Voltage Measurement	4.000, 40.00, 400.0, 600V AC; 400.0 mV; 4.000, 40.00, 400.0, 600V DC
Display	LCD, 4000 count
Resistance Measurement	400.0Ω; 4.000, 40.00, 400.0 kΩ; 4.000, 40.00 MΩ
Frequency Measurement	9.999Hz to 9.999MHz
Temperature Measurement	-4 to 1832 °F (-20 to 1000°C)
Capacitance Measurement	40.00, 400.0nF; 4.000, 40.00, 200.0µF
Measurement Category	CAT III, 600V

CAT. NO.	UPC NO.	DESCRIPTION
DM-45	783310003373	4,000-Count Digital Multimeter, 600V, 10A
TSG-3	783310120346	Test Leads





DM-25



Digital Multimeter

- Measures AC/DC voltage and resistance
- Diode and audible continuity tests
- Tests 1.5V and 9V batteries

SPECIFICATIONS

Voltage Measurement	200.0, 600V AC; 20.00, 200.0, 600V DC
Resistance Measurement	200.0, 2000Ω; 20.00, 200.0, 2000kΩ
Measurement Category	CAT III, 600V

CAT. NO.	UPC NO.	DESCRIPTION
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DM-25	783310003342	Manual Ranging Digital Multimeter, 600V
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PDMM-20



PDMM-20 Pocket Multimeter

- Auto-select mode for hassle-free use
- Low impedance eliminates stray or “ghost” voltage readings
- AC/DC voltage measurement
- Autoranging for quick, convenient measurements
- Non-contact voltage detection for identifying live lines without contacting conductors
- Intelligent Auto-Off for longer battery life
- Resistance measurement
- Audible continuity test
- Frequency measurement in voltage mode
- Capacitance measurement
- Low battery indicator
- Accessories included: (1) 3V battery (CR2032) and carrying case

SPECIFICATIONS

Voltage Measurement	6.000, 60.00, 450.0V
Resistance Measurement	6.000, 60.00, 600.0kΩ, 6.000MΩ
Capacitance	100.0, 1000nF; 10.00, 100.0μF
Display	LCD, 6000 count
Frequency	10.00Hz – 30.00Hz
Measurement Category	CAT II, 450V; CAT III, 300V

CAT. NO.	UPC NO.	DESCRIPTION
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PDMM-20	783310116899	Pocket Multimeter, 450V
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BASIC ELECTRICAL KITS



GT-11

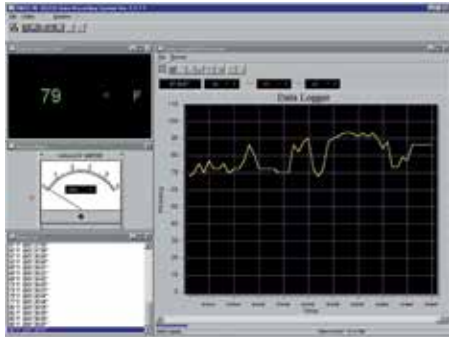
- Non-contact voltage detection
- Bright LED and audible alarm sound if voltage is present
- On/Off switch for longer battery life
- Convenient pen-size device easily fits into pockets or tool pouches
- Use to detect voltage in outlets, lighting fixtures, circuit breakers, wires and cables or to find a break in a wire

	TK-30A	TK-30AGFI
DM-25	X	X
GT-11	X	X
GT-10	X	-
GT-10GFI	-	X

CAT. NO.	UPC NO.	DESCRIPTION
TK-30A	783310008804	Electrical Kit, Basic
TK-30AGFI	783310015758	Electrical Kit, GFCI



MULTIMETER ACCESSORIES



See both digital and analog meter readouts on-screen, plus a large, easy-to-read graph of logged values – in this case, a thermocouple monitoring air temperature in a forced-air furnace duct.

Interface Kits

- Connects to a PC for data storage and retrieval from Greenlee digital multimeters and clamp meters
- Allows retrieval of stored data and real-time logging and graphing
- Retrieve stored data log from DML-Series
- Export data to disk for analysis with any spreadsheet

SPECIFICATIONS

Software Requirements	Windows 7/Vista/XP/2000/NT4 or Windows ME/98/95
Hardware Requirements	CPU and memory – minimum Windows requirement Monitor – at least 640 x 480, 800 x 600 recommended Hard disk – at least 500 megabytes free space Connection – DMSC-9U: free USB port; DMSC-2U: free USB or 9-pin serial port; DMSC-9: free 9-pin serial port

CAT. NO.	UPC NO.	DESCRIPTION
DMSC-2U	783310357728	Interface Kit, DM-200 and 200A Series and DM-510A Digital Multimeters
DMSC-9U	783310357735	Interface Kit, DM-800A Series Digital Multimeters
DMSC-9	783310077558	Interface Kit, DM-800 Series Digital Multimeters
CMSC-1U	783310025429	Interface Kit, CMI-2000 Clamp Meter



DMSC-9U



DMSC-2U



DMSC-9



CLAMP METERS

Comparison Guide

FEATURE	CMI-1000	CMI-600	CM-1560	CM-1360	CM-960	CM-860	CM-660	CM-450
Count	6000	6000	6000	6000	6000	6000	6000	4000
Jaw opening	2.00" (51 mm)	1.18" (30 mm)	2.00" (51 mm)	2.00" (51 mm)	1.18" (30 mm)	1.18" (30 mm)	1.18" (30 mm)	1.02" (26 mm)
True RMS	X	X	X	X	X	-	-	X
ACA (A max)	1000	600	1000	1000	600	600	600	600
Maximum resolution (A)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.01
Best accuracy (%)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.5
DCA (A max)	1000	600	1000	600	600	-	-	-
Maximum resolution (A)	0.1	0.1	0.1	0.1	0.1	-	-	-
Best accuracy (%)	1.5	1.8	1.2	1.8	1.8	-	-	-
ACV (V max)	1000	600	1000	1000	600	600	600	600
Maximum resolution (V)	0.1	0.1	0.1	0.1	0.1	0.1	1	0.001
Best accuracy (%)	0.8	1.0	0.8	0.8	1.0	1.0	1.0	1.5
DCV (V max)	600	600	1000	1000	600	600	600	600
Maximum resolution (V)	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1
Best accuracy (%)	0.8	1.0	0.8	0.8	1.0	1.0	1.0	0.3
Resistance (Ω)	60k	400	60k	60k	60k	60k	60k	40M
Continuity and beeper	X	X	X	X	X	X	X	X
Diode test	X	X	X	X	X	X	X	X
Capacitance	X	X	X	X	X	X	-	-
Frequency	X	X	X	X	X	X	-	X
Temperature (T1)	X	X	-	-	-	-	-	-
Display type	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital
Display update X/sec	2	2.5	2.5	2.5	2.5	2.5	4	3
Analog bar graph segments	40	42	42	42	42	42	-	-
Analog update X/sec	20	13	13	13	13	13	-	-
Low battery indicator	X	X	X	X	X	X	X	X
Autoranging	X	X	X	X	X	X	-	X
Auto power off	X	X	X	X	X	X	X	X
Peak hold	X	X	X	X	X	X	-	-
Data hold	X	X	X	X	X	X	X	X
Min, max	X	X	X	X	X	X	-	-
Data logging	-	-	-	-	-	-	-	-
Power factor	-	-	-	-	-	-	-	-
True power (kW)	-	-	-	-	-	-	-	-
Apparent Power (kVA)	-	-	-	-	-	-	-	-
Measurement Category	III, 600V	III, 600V	IV, 600V III, 1000V	IV, 600V III, 1000V	III, 600V	III, 600V	III, 600V	III, 600V
UL	X	X	X	X	X	X	X	X
cUL or CSA	X	X	X	X	X	X	X	X
CE	X	X	X	X	X	X	X	-
ETL	-	X	-	-	X	X	X	-

CLAMP METERS

Comparison Guide (Cont'd)

FEATURE	CM-410	CM-330	CSJ-100	CMT-90	CMT-80	CMF-110/ CMF-118	FC-110/ FC-118
Count	2000	2000	2000	10,000	10,000	3000	
Jaw opening	1.18" (30 mm)	1.08" (27 mm)	0.63" (16mm)	1.34" (34 mm)	1.06" (27 mm)	10"/18" (254 mm/457 mm)	10"/18" (254 mm/457 mm)
True RMS	-	-	-	X	-	X	-
ACA (A max)	400	400	200	600	400	3000	3000
Maximum resolution (A)	0.1	0.01	0.1	1.0	0.1	0.01	.01
Best accuracy (%)	1.9	2.0	3.0	1.9	1.8	3.0	3.0
DCA (A max)	-	-	-	-	-	-	-
Maximum resolution (A)	-	-	-	-	-	-	-
Best accuracy (%)	-	-	-	-	-	-	-
ACV (V max)	600	-	1000	1000	600	600	-
Maximum resolution (V)	0.1	-	0.1	0.1	0.1	0.001	-
Best accuracy (%)	1.5	-	1.5	1.5	1.5	1.2	-
DCV (V max)	600	-	1000	1000	600	-	-
Maximum resolution (V)	0.1	-	0.1	0.1	0.1	-	-
Best accuracy (%)	1.0	-	1.0	1.0	1.0	-	-
Resistance (Ω)	20M	-	20M	10k	10k	60M	-
Continuity and beeper	X	-	X	X	X	-	-
Diode test	-	-	X	X	X	-	-
Capacitance	-	-	-	-	-	-	-
Frequency	-	-	-	-	-	X	X
Temperature (T1)	-	-	-	-	-	-	-
Display type	Digital	Digital	Digital	Digital	Digital	LCD	-
Display update X/sec	1.5	2.5	1.5	1 to 4	1 to 4	-	-
Analog bar graph segments	-	-	-	-	-	-	-
Analog update X/sec	-	-	-	-	-	-	-
Low battery indicator	X	X	X	X	X	X	X
Autoranging	X	-	X	-	-	-	-
Auto power off	X	-	X	X	X	X	-
Peak hold	-	-	-	-	-	-	-
Data hold	X	X	X	X	X	X	-
Min, max	-	max. only	-	-	-	-	-
Data logging	-	-	-	-	-	-	-
Power factor	-	-	-	-	-	-	-
True Power	-	-	-	-	-	-	-
Apparent Power (kVA)	-	-	-	-	-	-	-
Measurement Category	III, 600V	III, 600V	IV, 600V III, 1000V	IV, 600V III, 1000V	III, 600V	IV, 600V	IV, 600V
UL	X	X	X	X	X	-	-
cUL or CSA	X	X	-	X	X	-	-
CE	-	-	X	-	-	X	X
ETL	-	-	-	-	-	X	X



CMI-1000





1000A Industrial Clamp Meter

- Measures AC+DC current and DC microamps
- AC and AC+DC voltage measurements with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance, capacitance, temperature and frequency
- Tests continuity and diodes
- Phase Sequence & Motor Rotation tests
- Peak-RMS measures motor inrush current
- Flashlight inside clamp jaw for easier work in dark locations
- Backlight & relative mode for added versatility
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records Maximum, Minimum and Average readings
- Crest (peak hold) feature captures current or voltage peaks as short as 5 milliseconds
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	60.00A, 600.0A, 1000A
Voltage Measurement	600.0V DC; 600.0V, 1000V AC+DC
Display	LCD, 6000 Count
Frequency Rating	Voltage: 5.00 to 999.9 Hz; Current: 40.00 to 400.00 Hz
Resistance	600.0Ω, 6.000kΩ, 60.00kΩ
Capacitance	200.0, 2500μF
Temperature	-40.0 to 752°F (-40.0 to 400°C)
Jaw Opening	2" (51 mm)
Measurement Category	CAT III 1000V, CAT IV 600V

CAT. NO.	UPC NO.	DESCRIPTION
CMI-1000	783310021872	Industrial Clamp Meter, 1000V, 1000A
CMI-1000-C*	783310022121	Industrial Clamp Meter, 1000V, 1000A, Calibrated
 02714	783310027140	Test Leads
 TC-30	783310075363	Carrying Case

*Includes Certificate of Calibration



CMI-600



600A Industrial Clamp Meter

- Measures AC+DC current and DC microamps
- AC and AC+DC voltage measurements with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance, capacitance, temperature and frequency
- Tests continuity and diodes
- Phase Sequence & Motor Rotation tests
- Peak-RMS measures motor inrush current
- Backlight & relative mode for added versatility
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records Maximum, Minimum and Average readings
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	60.00, 600.0A AC+DC
Voltage Measurement	600.0V DC 600.0V, 1000V AC
Display	LCD, 6000 Count
Frequency Rating	Voltage: 5.00 to 999.9 Hz; Current: 50.00 to 400.0 Hz
Resistance	600.0Ω, 6.000, 60.00kΩ
Capacitance	200.0, 2500μF
Temperature	-40.0 to 752°F (-40.0 to 400°C)
Jaw Opening	1.18" (30 mm)
Measurement Category	CAT III 600V, CAT IV 300V

CAT. NO.	UPC NO.	DESCRIPTION
CMI-600	783310021919	Industrial Clamp Meter, 1000V, 600A
CMI-600-C*	783310022299	Industrial Clamp Meter, 1000V, 600A, Calibrated
02714	783310027140	Test Leads

*Includes Certificate of Calibration



CM-1560





1000A AC/DC True RMS Clamp Meter

- Measures AC+DC current
- AC and AC+DC voltage measurements with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance, capacitance and frequency
- Tests continuity and diodes
- Flashlight inside clamp jaw for easier work in dark locations
- Backlight & relative mode for added versatility
- Peak-RMS measures motor inrush current
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records Maximum, Minimum and Average readings
- Crest (peak hold) feature captures current or voltage peaks as short as 5 milliseconds
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	60.00A, 600.0A, 1000A AC+DC
Voltage Measurement	600.0V DC 600.0V, 1000V AC+DC
Display	LCD, 6000 Count
Frequency Rating	Voltage: 5.00 to 999.9 Hz; Current: 40.00 to 400.00 Hz
Resistance	600.0Ω, 6.000kΩ, 60.00kΩ
Capacitance	200.0, 2500μF
Jaw Opening	2" (51 mm)
Measurement Category	CAT III 1000V, CAT IV 600V

CAT. NO.	UPC NO.	DESCRIPTION
CM-1560	783310021889	AC/DC True RMS Clamp Meter, 1000V, 1000A
 CM-1560-C*	783310022190	AC/DC True RMS Clamp Meter, 1000V, 1000A, Calibrated
 TSG-3	783310120346	Test Leads
TC-30	783310075363	Carrying Case

*Includes Certificate of Calibration



CM-1360



1000A AC True RMS Clamp Meter

- Measures AC current
- AC voltage measurement with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance, capacitance and frequency
- Tests continuity and diodes
- Flashlight inside clamp jaw for easier work in dark locations
- Backlight & relative mode for added versatility
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records Maximum, Minimum and Average readings
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	60.00A, 600.0A, 1000A
Voltage Measurement	600.0V DC 600.0V, 1000V AC
Display	LCD, 6000 Count
Frequency Rating	Voltage: 50/60Hz; Current: 40 to 400Hz
Resistance	600.0Ω, 6.000kΩ, 60.00kΩ
Capacitance	200.0, 2500μF
Temperature	-40.0 to 752°F (-40.0 to 400°C)
Jaw Opening	2" (51 mm)
Measurement Category	CAT III 1000V, CAT IV 600V

CAT. NO.	UPC NO.	DESCRIPTION
CM-1360	783310021902	AC True RMS Clamp Meter, 1000V, 1000A
CM-1360-C*	783310022213	AC True RMS Clamp Meter, 1000V, 1000A, Calibrated
R TSG-3	783310120346	Test Leads
R TC-30	783310075363	Carrying Case

*Includes Certificate of Calibration



CM-960




600A AC/DC True RMS Clamp Meter

- Measures AC+DC current
- AC and AC+DC voltage measurements with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance, capacitance and frequency
- Tests continuity and diodes
- Peak-RMS measures motor inrush current
- Backlight & relative mode for added versatility
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records of Maximum, Minimum and Average readings

SPECIFICATIONS

Amperage Measurement	60.00A, 600.0A
Voltage Measurement	600V
Display	LCD, 6000 Count
Frequency Rating	Voltage AmpTip™ Current: 50/60Hz; High Current: 50 to 400Hz
Resistance	600.0Ω, 6.000kΩ, 60.00kΩ
Capacitance	200.0, 2500μF
Jaw Opening	1.18" (30 mm)
Measurement Category	CAT III 600V, CAT IV 300V

CAT. NO.	UPC NO.	DESCRIPTION
CM-960	783310021926	AC/DC True RMS Clamp Meter, 600V, 600A
 CM-960-C*	783310022305	AC/DC True RMS Clamp Meter, 600V, 600A, Calibrated
TSG-3	783310120346	Test Leads

*Includes Certificate of Calibration



CM-860



600A AC True RMS Clamp Meter

- Measures AC current
- AC voltage measurement with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance, capacitance and frequency
- Tests continuity and diodes
- Backlight & relative mode for added versatility
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records Maximum, Minimum and Average readings
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	60.00, 600.0A
Voltage Measurement	600V
Display	LCD, 6000 Count
Frequency Rating	Voltage: 5.00 to 999.9 Hz; Current: 50.00 to 400.0 Hz
Resistance	60kΩ
Jaw Opening	1.18" (30 mm)
Measurement Category	CAT III 600V, CAT IV 300V

CAT. NO.	UPC NO.	DESCRIPTION
CM-860	783310022107	AC True RMS Clamp Meter, 600V, 600A
CM-860-C*	783310022329	AC True RMS Clamp Meter, 600V, 600A, Calibrated
R TSG-3	783310120346	Test Leads

*Includes Certificate of Calibration



CM-660




600A AC True RMS Clamp Meter

- Measures AC current
- AC voltage measurement with digital low pass filter for accurate readings on variable frequency drives
- Also measures DC voltage, resistance and frequency
- Tests continuity and diodes
- AmpTip™ increases accuracy on small wires and low current
- Two voltage detection modes – non-contact or using a single test lead
- Data hold
- Records Maximum, Minimum and Average readings
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	60.00, 600.0A
Voltage Measurement	600V
Resistance	60kΩ
Frequency	Voltage: 5.00 to 999.9 Hz; Current: 50.00 to 400.0 Hz
Display	LCD, 6000 Count
Jaw Opening	1.18" (30 mm)
Measurement Category	CAT III 600V, CAT IV 300V

CAT. NO.	UPC NO.	DESCRIPTION
CM-660	783310022114	AC True RMS Clamp Meter, 600V, 600A
CM-660-C*	783310022336	AC True RMS Clamp Meter, 600V, 600A, Calibrated
 TSG-3	783310120346	Test Leads

*Includes Certificate of Calibration



CM-450



600A AC True RMS Clamp Meter

- AC amperage, AC/DC voltage measurement
- True RMS for the most accurate measurement where harmonics are present
- Auto power off for longer battery life
- Resistance measurement
- Audible continuity and diode tests
- Frequency measurement
- Data hold
- Accessories included: test leads, 3V standard button battery (IEC-CR 2032; ANSI-NEDA 54004LC)

SPECIFICATIONS

Amperage Measurement	40.00, 400.0, 600A AC
Voltage Measurement	4.000, 40.00, 400.0, 600V AC 400.0 mV, 4.000V, 40.00, 400.0, 600V DC
Display	LCD, 4000 Count
Resistance	400.0Ω, 4.000kΩ, 40.00kΩ, 400.0kΩ, 4.000MΩ, 40.00MΩ
Jaw Opening	1.02" (26 mm)
Measurement Category	CAT III, 600V

CAT. NO.	UPC NO.	DESCRIPTION
CM-450	783310127260	AC True RMS Clamp Meter, 600V, 600A
R TSG-3	783310120346	Sure-Grip Test Leads



CM-410



400A AC Clamp Meter

- Measures AC amperage and AC/DC voltage
- Data hold
- Audible continuity test
- Auto power off for longer battery life
- Accessories included: (2) 1.5V AAA batteries, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	200.0, 400A AC
Voltage Measurement	200.0, 600V
Display	LCD, 2000 Count
Resistance	200.0Ω, 2.000, 20.00, 200.0kΩ, 2.000, 20.00MΩ
Jaw Opening	1.08" (27.4 mm)
Measurement Category	CAT III 600V

CAT. NO.	UPC NO.	DESCRIPTION
CM-410	783310734208	AC Clamp Meter, 600V, 400A
00606	783310006060	Test Leads



CM-330



400A AC Clamp Meter

- Measures AC current
- Data hold and Max hold to capture important readings
- Accessories included: (1) 9V battery and carrying case

SPECIFICATIONS

Amperage Measurement	19.99, 199.9, 400A AC
Display	LCD, 2000 Count
Jaw Opening	1.18" (30 mm)
Measurement Category	CAT III, 600V

CAT. NO.	UPC NO.	DESCRIPTION
CM-330	783310118657	AC Clamp Meter, 400A



CSJ-100



200A AC Open Jaw Clamp Meter

- AC amperage, AC/DC voltage measurement
- Open jaw design eases AC current measurement
- Slim profile with built-in probe storage on back
- Resistance measurement
- Audible continuity and diode test
- Bright LED and audible alarm for non-contact voltage detection
- Auto power off for longer battery life
- Data hold
- Accessories included: (2) 1.5V AAA batteries, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	200.0 AC
Voltage Range	200.0, 1000V
Resistance Measurement	200.0Ω; 2.000, 20.00, 200.0 kΩ; 2.000, 20.00 MΩ
Display	LCD, 2000 count
Jaw Opening	0.63" (16mm)
Measurement Category	CAT IV 600V, CAT III 1000V

CAT. NO.	UPC NO.	DESCRIPTION
CSJ-100	783310871361	AC Open Jaw Clamp Meter, 1000V, 200A
R 11372	783310113720	Test Leads



CMT-90




1000V/600A Automatic Electrical Tester

- Hassle-free, automatic measurement of amperage, voltage and resistance
- Low impedance helps eliminate stray or “ghost” voltage readings
- True RMS for the most accurate measurement when harmonics are present
- High resolution, auto-illuminating LCD backlit display
- Auto off for longer battery life
- Resistance measurement
- Audible continuity test
- Diode test
- Data hold
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	0.6 to 600.0 AC
Voltage Measurement	1.8 to 999.9V DC; -0.6 to -999.9V DC
Resistance	0.0 to 99.9Ω; 100 to 2000Ω
Display	LCD, 10,000 count
Jaw Opening	1.34" (34 mm)
Measurement Category	CAT IV, 600V; CAT III, 1000V

CAT. NO.	UPC NO.	DESCRIPTION
CMT-90	783310121237	Automatic Electrical Tester, 1000V, 600A
 TSG-3	783310120346	Sure-Grip Test Leads



CMT-80



600V/400A Automatic Electrical Tester

- Hassle-free, automatic measurement of amperage, voltage and resistance
- Low impedance helps helps eliminate stray or “ghost” voltage readings
- Compact design for measuring in tight spaces
- Resistance measurement
- Audible continuity test
- Diode test
- Data hold
- Auto off for longer battery life
- Accessories included: (1) 9V battery, test leads and carrying case

SPECIFICATIONS

Amperage Measurement	0.6 to 400.0A AC
Voltage Measurement	1.3 to 600.0V AC; 1.8 to 600.0; -0.6 to -600.0V DC
Resistance	0.1 to 99.9Ω; 100 to 2000Ω
Display	LCD, 10,000 count
Jaw Opening	1.06" (27 mm)
Measurement Category	CAT III, 600V

CAT. NO.	UPC NO.	DESCRIPTION
CMT-80	783310077350	Automatic Electrical Tester, 600V, 400A
R 11372	783310113720	Test Leads

CMF & FC SERIES

FLEXIBLE CLAMP METERS & CURRENT PROBES

NEW



CMF SERIES SPECIFICATIONS

Amperage Measurement	30.00, 300.0, 3000A AC
Voltage Measurement	6.000, 60.00, 600.0V AC
Resistance Measurement	6.000, 60.00, 600.0kΩ; 6.000, 60.00MΩ
Frequency Measurement	20 to 30kHz
Coil Length	10" (25.4 mm), 18" (45.7 cm)
Measurement Category	CAT IV, 600V

FC SERIES SPECIFICATIONS

Current Measurement	30.0, 300, 3000A
Coil Length	10" (25.4 mm), 18" (45.7 cm)
Measurement Category	CAT IV, 600V

- Accessories included: leads, softy carrying case and 3 AAA batteries

	CAT. NO.	UPC NO.	DESCRIPTION
N	CMF-110	783310088530	10" Flex Clamp Meter, 600V, 3000A
N	CMF-118	783310088547	18" Flex Clamp Meter, 600V, 3000A
N R	CMF-LK	783310037569	Test Lead Replacement Kit
N	FC-110	783310088554	10" Flex Clamp Current Probe, 3000A
N	FC-118	783310088561	18" Flex Clamp Current Probe, 3000A
N R	CMF-B	783310088790	FC and CMF Replacement Carrying Case

CMGRT-100A

GROUND RESISTANCE TESTER

NEW



Wide Jaw Opening

Clamps around cable and rod diameters up to 1.38"

Rotary Dial

For easy selection of the variety of different settings

Memory Function

Stores up to 300 measurements

Non-contact Voltage Detection

Visual and audible alerts for increased safety

Automated Date and Time Stamp

Facilitates accurate data reporting

Large, Bright OLED Display

Allows operator to read in low light conditions



CMGRT-100A



SPECIFICATIONS

Ground Resistance Measurements	0.01Ω to 1500Ω
Current Measurement Frequency	47Hz to 800Hz
Resistance Measurement Frequency	2083Hz
Clamp Opening	1.38"
Memory	300 entries
Alarms (3)	Impedance, Voltage, Current
Weight	2.06 lb
Measurement Category	CAT IV, 600V

- Accessories included: case, 9V Alkaline battery, calibration verification loop

	CAT. NO.	UPC NO.	DESCRIPTION
N	CMGRT-100A	783310082217	Ground Resistance Tester
N	CMGRT-100A-C	783310082224	Ground Resistance Tester. Calibrated
N R	CMGRT-CL	783310082200	Calibration Verification Loop

CS-5000 – CIRCUIT SEEKER™

TRACE AND LOCATE WITH CONFIDENCE

NEW



Mode Indicator

Search mode and breaker mode

Line Status Indicator

Indicates an energized circuit

LED Lights

Indicates relative signal strength

Low Battery Indicator

Maximizes productivity

Ergonomic Over-Molded Grip

Results in comfort for the operator



CS-5000

SPECIFICATIONS

Voltage Rating	600V AC/DC
Tracing Range Open Line Mode	Up to 10 ft (3 m) with a metallic connection to ground; 1 to 3 ft (0.3 to 0.9 m) with a capacitive ground reference
Tracing Range Live Line Mode	Up to 20 ft (6 m) from circuit
Auto Power Off Intervals (Transmitter)	4 Hours
Auto Power Off Intervals (Receiver)	30 minutes without signal
Battery Type	Transmitter – Two 1.5V AA batteries; Receiver – Two 1.5V AA batteries

- Accessories included: (2) alligator clips, AC blade, AC plug adapter, (2) extension leads, and carrying case

	CAT. NO.	UPC NO.	DESCRIPTION
	CS-5000	783310085133	Circuit Seeker Kit
	08435	783310084358	Transmitter
	08436	783310084365	Receiver
	10057	783310100577	(2) Alligator Clips
	10054	783310100546	AC Blade
	12852	783310128526	AC Plug Adapter
	12853	783310128533	(2) Extension Leads
	08437	783310084372	Carrying Case



CS-8000



CS-8000 (Kit)



CS-8000 Circuit Seeker™ Circuit Tracer

- Advanced patented non-directional sensing technology
- Superior sensitivity and functionality providing for accurate tracing & locating
- Ergonomic receiver with information-rich full-color graphical LCD
- Graphics and audible signal provide quick and easy to understand tracing feedback
- Traces concealed wiring, locates junction boxes, and finds breakers for live or open circuits
- Locates and identifies blown fuses
- Finds shorts and breaks in conductors
- Low pitch, high volume audible indicator
- User-selectable automatic or manual gain capability for fast, convenient use
- Can be used on GFCI protected circuits
- Automatic backlight on receiver maximizes battery life
- Supports transmitter-to-receiver distances up to 4 miles for closed circuit tracing
- Accessories included: (2) alligator clips, AC blade, AC plug adapter, and carrying case

SPECIFICATIONS

Voltage Rating	750V AC/DC
Tracing Range Open Line Mode	Up to 10 ft (3 m) with a metallic connection to ground; 1 to 3 ftn (0.3 to 0.9 m) with a capacitive ground reference
Tracing Range Live Line Mode	Up to 20 ft (6 m) from circuit
Auto Power Off Intervals (Transmitter)	4 Hours
Auto Power Off Intervals (Receiver)	30 minutes without signal
Battery Type	Transmitter: Two 1.5V AA batteries Receiver: Two 1.5V AA batteries

CAT. NO.	UPC NO.	DESCRIPTION
CS-8000	783310121268	Circuit Seeker Kit
R 12849	783310128496	Transmitter
R 12850	783310128502	Receiver
R 10057	783310100577	Alligator Clips (2)
R 10054	783310100546	AC Blade
R 12852	783310128526	AC Plug Adapter
R 12851	783310128519	Carrying Case

INSULATION TESTING

Comparison Chart

FEATURE	5990A	5882A
Test Voltage	-	-
50V	-	X
100V	-	X
250V	X	X
500V	X	X
1000V	X	X
2500V	X	-
5000V	X	-
Insulation Range	-	-
50V	-	10 kΩ to 10 GΩ
100V	-	20 kΩ to 20 GΩ
250V	Auto-ranging, 5 kΩ to 999 GΩ	50 kΩ to 50 GΩ
500V		100 kΩ to 100 GΩ
1000V		200 kΩ to 200 GΩ
2500V		-
5000V		-
Automatic Discharge	X	X
Display Counts	1,000	4,000
Basic Accuracy	5%	3%
Voltage Measurement	1V to 600V	0.3V to 700V
Continuity	-	>100Ω
Resistance	-	0 to 4 MΩ
Frequency	-	15.3Hz to 800Hz
Display Type	Backlit LCD	Backlit LCD
Battery Type	Rechargeable NiMH	6 AA
Weight	6.61 lb (3kg)	1.07 lb (850g)
Measurement category	Cat IV, 600V	Cat IV, 600V
UL	X	X
CE	X	X

5990A 5kV MEGOHMMETER

NEW



Progressive Battery Gauge
Indicates the condition of the battery



Handle and Shoulder Strap
Integrated into the unit for durable portability

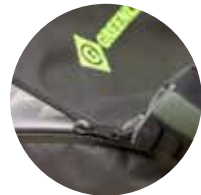


Five Pre-Set Test Voltages
250V, 500V, 1000V, 2500V, 5000V
for quick adjustment



Detachable Lid
Enclosed with operating instructions

Large Backlit LCD Display
Allows operator to read in low light conditions



All-In-One Carrying Bag
Designed with a heavy-duty zipper



5990A SPECIFICATIONS

Pre-set test voltages	250V, 500V, 1000V, 2500V and 5000V
Voltage and Frequency Measurement	Up to 600V AC/DC
Automatic discharge	Yes
Battery Power supply	7.2V dc (6 × 1.2V nimhc size); rechargeable batteries with charger on-board
Auto-Calibration	Every time after turning power on
Weight	3 Kg without accessories, with batteries
Safety Voltage rating	Cat IV, 600V

- Accessories included: (1) red lead with alligator clip, (1) black lead with alligator clip, (1) mains cord, (6) 12V batteries, accessory case, and carrying case (with calibration certificate*)

	CAT. NO.	UPC NO.	DESCRIPTION
N	5990A	783310084716	Megohmmeter 5kV
N	5990A-C	783310084822	Megohmmeter 5kV, Calibrated
N R	5990A-LK	783310087281	Test Lead Kit Nylon Bag, (1) Red Lead with Alligator Clip, (1) Black Lead with Alligator Clip, (1) Green Lead with Alligator Clip
R	5990A-B	783310087380	5kV Carrying Case
R	5990A-M	783310088103	Mains Cord

*Calibrated only

5882A

1kV MEGOHMMETER



Data Hold Button

Facilitates accurate capture of readings



Convenient Kick Stand

Allowing the tester to be kept upright

Non-Skid Over Molded Rubber Holster

Protects the meter against debris



Molded in Magnetic Mount

For convenient hands-free measurements

Large, Bright Digital Display

Allows operator to read in low light conditions

Easy-to-use User Interface

Rotary Selector

Select from the available 10 functions

5882A



5882A SPECIFICATIONS

Pre-set Test Voltages	50V, 100V, 250V, 500V, 1000V
Resistance Measurement	0 to 4MΩ
Frequency Measurement	15.3 to 800Hz
Voltage Measurement	.3 to 700V
Operating Temperature	-4F to 131F
Storage Temperature	-22°F to 176 °F
Continuity Checking	<100Ω
Standby Mode	After 5 minutes of inactivity
Battery Power Supply	Six 1.5V AA
Weight	1.07 lb
Safety Voltage Rating	Cat IV, 600V

- Accessories included: (2) red and black leads, (2) red and black test alligator clips, (1) black test probe and soft carrying case (with calibration certificate*)

	CAT. NO.	UPC NO.	DESCRIPTION
	5882A	783310071549	Megohmmeter 1kV
	5882A-C	783310084815	Megohmmeter 1kV, Calibrated
	5882A-LK	783310085676	Test Lead Kit (2) Red & Black Leads, (2) Red & Black Test Probes, (2) Red & Black Alligator Clips
	5882A-B	783310087762	1kV Soft Carrying Case

*Calibrated only



5124

MOTOR ROTATION INDICATOR



Over-molded Holster
Protects the meter from debris

Phase Sequence Indicators

LED Motor Rotation Indicators



5124



SPECIFICATIONS

Voltage Range (Line-to-Line)	Rotational field: 80V to 440V Phase: 190V to 600V
Frequency	50Hz to 60Hz
Battery	9V
Safety Voltage Rating	Cat III, 600V

- Accessories included: (2) red and black leads, (2) red and black test alligator clips, (1) black test probe and soft carrying case (with calibration certificate*)

CAT. NO.	UPC NO.	DESCRIPTION
5124	783310088752	Phase Sequence Rotation Motor Indicator Kit
5124-LK	783310088776	Tri-color Leads with Alligator Clips Replacement
5124-B	783310088769	Soft Carrying Case Replacement

*Calibrated only

SPECIALTY TEST EQUIPMENT





CLM-1000

Standard Cable Length Meter

- Measures length of cable without removing it from spool, counting turns or weighing spool
- Push button selections of copper or aluminum cable
- Eight user-programmable settings for other gauges
- Powered by (6) 1.5V AA batteries

SPECIFICATIONS

Display	LCD, 4-1/2"
Voltage Rating	Not intended for connection to live voltage
Resistance Range	199.9 milliohms to 1999.9Ω in 5 ranges
Cable Length	From 15 ft to 100 ft
Resistant Values	Down to 199.99Ω
Pre-set AWG wire gages (CLM-1000)	18, 16, 14, 12, 10, 8, 6, 4, 2, 1/0, 2/0, 3/0, 4/0
Pre-set kcmil wire sizes (CLM-1000)	250, 350, 400, 500, 600, 750, 1000
Metric wire sizes (CLM-1000E)	0.75, 1, 1.5, 2.5, 4, 6, 10, 16, 25, 35, 50, 70, 95, 120, 150, 185, 240, 300, 400, 500 mm ²

CAT. NO.	UPC NO.	DESCRIPTION
CLM-1000	783310027195	Standard Cable Length Meter
CLM-1000E	783310027201	Metric Cable Length Meter
 CLM-ROD	783310027218	Calibration Rods (Pair)
 CLM-CLIPS	783310027225	Kelvin Clips (Pair)



TG-2000

TG-1000



TG-1000 & TG-2000 Infrared Thermometers

BOTH TG-1000 AND TG-2000 OFFER:

- Safe, non-contact temperature measurement
- Display temperatures in either Fahrenheit or Celsius
- Adjustable emissivity for optimum temperature reading accuracy on a wide range of materials and surfaces
- Min, Max, Difference and Average temperature functions
- Backlit display for easy readings in any environment

TG-1000 FEATURES:

- Laser spot indicator showing approximate center of target measurement area

TG-2000 FEATURES

- Wider temperature range
- Higher distance-to-spot (D:S) Ratio for measuring smaller targets or at greater distances
- Dual lasers indicate approximate diameter of target measurement area

SPECIFICATIONS

	TG-1000	TG-2000
Range – °F	-76 - 1022	-76 - 1157
Range – °C	-60 - 500	-60 - 625
D:S Ratio	12:1	16:1
Laser	X	Dual
K-Type Contact	-	X
Emissivity	.10 - 1.00	.10 - 1.00
Backlight	X	X
Alarms	Hi/Low	Hi/Low

CAT. NO.	UPC NO.	DESCRIPTION
TG-1000	783310001034	Infrared Thermometer
TG-2000	783310001041	Dual Laser Infrared Thermometer



93-172



Digital Light Meter

- Measures incandescent, fluorescent, metal halide, high-pressure sodium and halogen lamp output
- Color and cosine-corrected for enhanced accuracy
- Measures up to 50,000 lux
- Peak and data hold means no lost measurements
- Accessories included: (1) 9V battery and carrying case




SPECIFICATIONS

ILLUMINANCE RANGE

Foot Candles	0.01 - 5,000 fc (20/200/2,000/5,000)
Lux	0.1 - 50,000 lux (200/2,000/20,000/50,000)

ACCURACY

Incandescent Light Source	± 4%
Other Light Sources	± 7%
Temperature Range	0° to 40° C (32° to 104° F)
Sampling Rate	2.5 times per second

CAT. NO.	UPC NO.	DESCRIPTION
93-172	783310060604	Digital Light Meter
93-172-C*	783310070849	Digital Light Meter, Calibrated
 06200	783310062004	Carrying Case
 06061	783310060611	Sensor
 06083	783310060833	Sensor Case

*Includes Certificate of Calibration

ACCESSORIES



TSG-3



Sure-Grip Test Leads

- 39" (1 m) long flexible silicon insulated wire
- Right-angle meter plugs
- Comfort-grip overmolded probes
- Gold plated tips for low contact resistance
- Set of 2 leads, one black and one red
- Measurement Category:
 - With Caps: CAT IV 1000 V
 - Without Caps: CAT II 1000 V
- Maximum current 10 amps

CAT. NO.	UPC NO.	DESCRIPTION
TSG-3	783310120346	Sure-Grip Test Leads



TPB

Bead Temperature Probe

- For surface and air/gas temperature measurement
- Not suitable for liquids
- Measurement range: -40°F to 399°F (-40°C to 204°C)
- Probe length: 39.4" ±0.2" (1 m ±5 mm)
- Type K thermocouple

CAT. NO.	UPC NO.	DESCRIPTION
TPB	783310075929	Temperature Probe



TC-15

Deluxe Carrying Case

- Durable nylon carrying case
- Inside pocket for test leads
- With carry strap and double-stitched belt loop

SPECIFICATIONS

Size	11-1/4" x 3" x 2" (285.8 mm x 76.2 mm x 50.8 mm)
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CAT. NO.	UPC NO.	DESCRIPTION
TC-15	783310075950	Deluxe Carrying Case



TC-30

Deluxe Carrying Case

- Durable nylon carrying case
- Inside pocket for test leads
- With carry strap and double-stitched belt loop

SPECIFICATIONS

Size	11-1/4" x 4-1/2" x 2 1/8" (285 mm x 115 mm x 55 mm)
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CAT. NO.	UPC NO.	DESCRIPTION
TC-30	783310075363	Deluxe Carrying Case



TC-20

Deluxe Carrying Case

- Durable nylon carrying case
- Inside pocket for test leads
- With carry strap and double-stitched belt loop

SPECIFICATIONS

Size	7-3/4" x 6-1/4" x 2" (196.9 mm x 158.8 x 50.8 mm)
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CAT. NO.	UPC NO.	DESCRIPTION
TC-20	783310075356	Deluxe Carrying Case

FUSE SELECTION GUIDE

SUITABLE FUSES	BUSSMAN GDA-160MA LITTELFUSE 216.160	BUSSMAN GDA-315MA LITTELFUSE 216.315	BUSSMAN KTK-4/10 LITTELFUSE BLS-4/10	BUSSMAN DMM-B-44/100 LITTELFUSE FLU .44 FERRAZ FSM44/100	BUSSMAN GDA-500MA LITTELFUSE 216.500	FERRAZ 500V FA 0.63A 6,3X32 SIBA 189 020.0.630	FERRAZ 660V FA 0.63A 6,3X32	BUSSMAN AGC-10	BUSSMAN KTK-10 LITTELFUSE KLK-10	BUSSMAN DMM-B-11-A LITTELFUSE FLU011 FERRAZ FSM11	FERRAZ 500V FA 12.5A 6,3X32 SIBA 189 020.12.5	BUSSMAN KTK-15 LITTELFUSE KLK-15
DM-200A	-	-	-	-	-	X	-	-	X	-	-	-
DM-210A	-	-	-	-	-	X	-	-	X	-	-	-
DM-510A	-	-	-	-	-	X	-	-	X	-	-	-
DM-810A	-	-	-	X	-	-	-	-	-	X	-	-
DM-820A	-	-	-	X	-	-	-	-	-	X	-	-
DM-830A	-	-	-	X	-	-	-	-	-	X	-	-
DM-860A	-	-	-	X	-	-	-	-	-	X	-	-
FUSE RATINGS	-	-	-	-	-	-	-	-	-	-	-	-
AMPERAGE	160 mA	315 mA	400 mA	440 mA	500 mA	630 mA	630 mA	10 A	10 A	11 A	12.5 A	15 A
VOLTAGE	250V	250V	600V	1000V	250V	500V	660V	250V	600V	1000V	500V	600V
INTERRUPTING RATING (AMPS)	1,500	1,500	10,000	10,000	1,500	150,000	30,000	200	100,000	10,000	20,000	100,000

SOFTWARE COMPATIBILITY

CAT. NO.	DMSC-2U	DMSC-9U	DMSC-9	CMSC-1U
DM-200A	X	-	-	-
DM-210A	X	-	-	-
DM-510A	X	-	-	-
DM-810A	-	X	-	-
DM-820A	-	X	-	-
DM-830A	-	X	-	-

INSTRUMENT CASE COMPATIBILITY

CASE CAT NO.	TC-20	TC-30	TC-40	CMF-B
GT-95	-	-	-	-
GT-65	-	-	-	-
DM-800 Series	X	-	-	-
DM-500 Series	X	-	X	-
DM-200 Series	X	-	X	-
DM-25	-	-	X	-
CMI-1000	-	X	-	-
CM-1500 Series	-	X	-	-
CM-1300 Series	-	X	-	-
CM-900 Series	-	-	-	-
CM-800 Series	-	-	-	-
CM-600 Series	-	-	-	-
CM-450	-	-	-	-
CM-410	-	-	-	-
CM-330	-	-	-	-
CSJ-100	-	-	-	-
CMT-90	-	-	-	-
CMT-80	-	-	-	-
CMF-100/CMF-118	-	-	-	X
FC-100/FC-118	-	-	-	X



NOTES