

## Testing & Measurement

Greenlee is the leader in electrical testing and measurement – and has been for more than fifteen years. Our innovative products are designed to withstand the rigorous tasks and harsh elements known to be found on the jobsite. This means with Greenlee, you have tough and reliable tools that make your job faster, safer and easier.

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**GREENLEE**  
A Textron Company

MADE FOR THE TRADE!™



**Meeting today's stringent safety standards is essential.**

Greenlee's certification of selected instruments to both the most recent IEC and UL requirements brings you assurance of the highest level of protection currently available.

**What you should know about Measurement Category ratings.**

IEC Category standards specify protection levels that are far above a system's rated capacity. Without this additional protection, transient overvoltages, which are becoming increasingly common, can lead to serious injury or death.

**Measurement Category I** is the signal level for telecommunications and electronic equipment.

**Measurement Category II** is the local level for fixed or nonfixed powered devices – everything from lighting to appliances to office equipment such as copiers. May also be used in Category I areas.

**Measurement Category III** is the distribution level – fixed 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. May also be used in Category II and Category I areas.

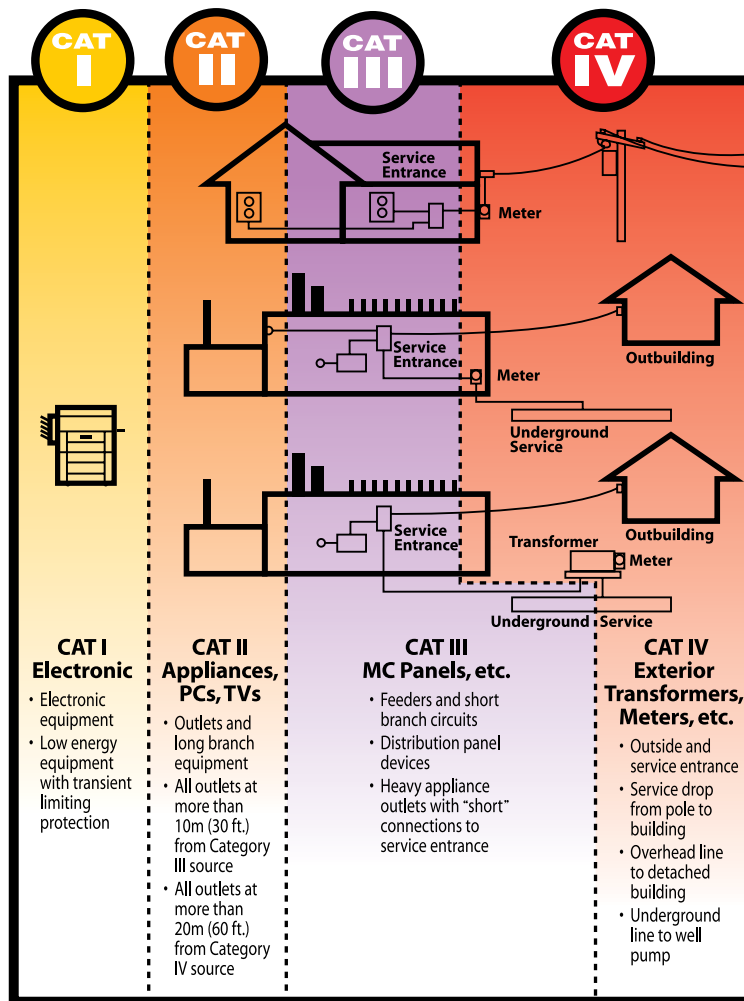
**Measurement Category IV** is the primary supply level. Greenlee is leading the way in offering protection certified to conform with the highest level of protection as specified by UL & IEC standards. May be used in all Category environments.

**Greenlee Instruments** – Independently tested and certified to meet the standards.

Throughout this catalog, you'll see Category designations for many Greenlee instruments indicating that they comply with UL & IEC Category II, III, IV. All of these designations reflect third-party testing by independent testing organizations such as UL and TUV – added assurance for you. While there is no requirement for independent verification, we believe you deserve it.

**Get the right protection for the job.**

Wherever you need overvoltage protection, choose at least the rating appropriate to the type of work you expect to be doing. If you have any questions on using Greenlee test instruments to help ensure user safety, please contact Greenlee.



# ELECTRICAL TESTERS

## Electrical Testers Comparison Guide

FEATURE	GT-95	GT-65	GT-540	GT-220	CSJ-100	CMT-90	CMT-80	2010	GT-16	GT-12	GT-15
VDC (V max)	1000	1000	1000	1000	1000	1000	600				
VAC (V max)	1000	1000	1000	1000	1000	1000	600	1000	1000	1000	90
AAC (A max)					200	600	400				
Continuity and beeper	•	•	•	•	•	•	•				
Resistance			•	•	•	•	•				
Data hold			•	•	•	•	•				
GFCI test	•										
Non-contact voltage detection	•	•	•	•				•	•	•	•
Adjustable sensitivity								•	•		
Display type	Digital	LED	Digital	Digital	Digital	Digital	Digital	LED	LED	LED	LED
Measurement Category	IV, 600V III, 1000V	IV, 600V III, 1000V	IV, 1000V	IV, 1000V	IV, 600V III, 1000V	IV, 600V III, 1000V	III, 600V	III, 1000V	IV, 1000V	IV, 1000V	III, 300V
UL/cUL	•	•	•	•	•	•	•	•	•	•	•
CE	•	•	•	•	•	•	•	•	•	•	•

### GT-95 Voltage Tester



- AC/DC voltage and polarity measurement.
- LCD and dual color LEDs for convenience.
- Selectable SHAKER feature when measuring AC voltage.
- 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.
- Safe, non-contact voltage detection.
- GFCI test capability eliminates the need for additional testers.
- Visual and audible continuity.
- Accessories included: (2) 1.5V AAA batteries, test leads and carrying case
- Lifetime Limited Warranty.

#### CAT. NO. UPC NO. DESCRIPTION

GT-95	09027	Voltage Tester, LCD & GFCI
TSG-3	12034	Sure-Grip Test Leads
TC-5	07588	Carrying Case

#### SPECIFICATIONS

<b>Voltage Detection</b>	19 to 1000V AC, 5 to 1000V DC
<b>Continuity Verification</b>	0 to 50 kΩ
<b>Frequency</b>	DC, 45-65 Hz
<b>GFCI</b>	7.5 mA nominal at 120V AC
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V

### GT-65 Voltage Tester



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

#### CAT. NO. UPC NO. DESCRIPTION

GT-65	09025	Voltage Tester
TSG-3	12034	Sure-Grip Test Leads

#### SPECIFICATIONS

<b>Voltage Detection</b>	19 to 1000V AC, 5 to 1000V DC
<b>Continuity Verification</b>	0 to 50 kΩ
<b>Frequency</b>	DC, 45-65 Hz
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V



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## Electrical Tester



GT-540



GT-540



GT-220

### GT-220 features:

- Hassle-free, automatic measurement of voltage and resistance.
- Low impedance eliminates stray or "ghost" voltage readings.
- AC/DC voltage measurements.
- Autoranging for quick, convenient measurements.
- Non-contact voltage detection for identifying live lines without contacting conductors.
- Auto off for longer battery life.
- Low battery indicator.
- Resistance measurement.
- Audible continuity test.
- Data hold to capture measurements.
- U.S. Patent D491,084.
- Accessories included: (1) 9V battery, test leads and carrying case.
- Lifetime Limited Warranty.

### GT-540 also features:

- High impedance AC/DC voltage measurement capability for load-sensitive circuits.
- Capacitance measurement.
- Diode test.
- Low resistance range with fast continuity test.
- Enhanced accuracy.
- Auto and manual range selection.

CAT. NO.	UPC NO.	DESCRIPTION
GT-540	07749	Multifunction Electrical Tester
GT-220	07748	Electrical Tester
TSG-3	12034	Sure-Grip Test Leads
TC-40	19216	Carrying Case

### SPECIFICATIONS

<b>Voltage Measurement</b>	6.000, 60.00, 600.0, 1000V
<b>Resistance Measurement</b>	6.0, 60.00, 600.0kΩ; 6.000 MΩ
<b>Capacitance</b>	100.0, 1000.0 nF; 10.00, 100.0, 2000 μF
<b>Display</b>	6000-count LCD
<b>Measurement Category</b>	CAT IV, 1000V

## AC Open Jaw Clamp Meter



- AC amperage, AC/DC voltage measurement.
- Open jaw design eases AC current measurement.
- Slim profile with build-in probe storage on back.
- Measures resistance up to 20MΩ.
- Audible continuity and diode test.
- Bright LED and audible alarm for non-contact voltage detection.
- Auto power off for longer battery life.
- Data hold to capture measurements.
- 2000 count LCD.
- Accessories included: (2) 1.5V AAA batteries, test leads and carrying case.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
CSJ-100	87136	Clamp, Open Jaw
11372	11372	Test Leads
TC-5	07588	Carrying Case

### SPECIFICATIONS

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

## Automatic Electrical Tester



- Hassle-free, automatic measurement of amperage, voltage and resistance.
- Low impedance eliminates 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.
- Data hold to capture measurements.
- Accessories included: (1) 9 V battery, test leads and carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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CMT-90	12123	Electrical Tester, 1000V, 600A
TSG-3	12034	<b>R</b> Test Leads
TC-10	07534	<b>R</b> Carrying case

### SPECIFICATIONS

<b>Amperage Measurement</b>	AC A 0.6 to 600.0
<b>Voltage Measurement</b>	AC V: 1.3 to 999.9; DC V: 1.8 to 999.9; -0.6 to -999.9
<b>Resistance</b>	2000Ω
<b>Display</b>	10,000-count LCD
<b>Jaw Opening</b>	1.34" (34 mm)
<b>Measurement Category</b>	CAT IV, 600 V; CAT III, 1000 V

## Automatic Electrical Tester



- Hassle-free, automatic measurement of amperage, voltage, and resistance.
- Low impedance eliminates stray or "ghost" voltage readings.
- Compact design for measuring in tight spaces.
- 400A AC, 600V AC/DC measurement.
- Data hold to capture important readings.
- Auto off for longer battery life.
- Accessories included: (1) 9 V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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CMT-80	07735	Electrical Tester
11372	11372	<b>R</b> Test Leads
TC-5	07588	<b>R</b> Carrying case

### SPECIFICATIONS

<b>Amperage Measurement</b>	0.6 - 400.0A AC
<b>Voltage Measurement</b>	AC V: 1.3-600.0V; DC V: 1.8-600.0; -0.6 to -600.0V
<b>Resistance</b>	2000Ω with continuity beeper
<b>Display</b>	6000-count LCD
<b>Jaw Opening</b>	1.06" (27 mm)
<b>Measurement Category</b>	CAT III, 600V

## Touchless AC Voltage Indicator



- Bright LED and audible alarm if voltage is present.
- Fast, easy, non-contact voltage detection.
- Adjustable sensitivity.
- Identifies hot and neutral conductors.
- Checks individual breakers for power.
- Accessories included: (1) 9V battery.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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2010	34470	Touchless AC Voltage Indicator
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### SPECIFICATIONS

<b>Voltage Measurement</b>	AC V 24-1000
<b>Frequency</b>	50-500Hz
<b>Measurement Category</b>	CAT III, 1000V



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## Adjustable Non-Contact Voltage Detector



- Adjustable to safely detect power and low voltage.
- Safely detects AC voltage without touching the bare conductor.
- Adjustable for use on power wiring plus lighting, thermostats and other low voltage circuits.
- Use to detect voltage in outlets, lighting fixtures, wires and cables.
- Finds breaks in wires.
- Identifies hot and neutral conductors.
- Low battery indication.
- Accessories included: (1) 1.5V AAA battery.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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GT-16	12727	Adjustable Non-Contact Voltage Detector
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### SPECIFICATIONS

<b>Voltage Detection:</b>	AC V 5-1000
<b>Frequency:</b>	50-500Hz
<b>Measurement Category:</b>	CAT IV, 1000V

## Non-Contact Self Testing Voltage Detector



- Designed and assembled in USA.
- Automatic self-test verifies the integrity of the unit.
- Bright LEDs and audible alarm sound if voltage is present.
- Silent-mode feature for use in quiet settings.
- Safe, 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 five minutes of non-use to conserve battery life.
- Low battery indicator.
- (2) 1.5V AAA batteries included.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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GT-12	20947	Non-Contact Self-Testing Voltage Detector
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### SPECIFICATIONS

<b>Voltage Detection:</b>	AC V 50-1000
<b>Frequency:</b>	50-500Hz
<b>Measurement Category:</b>	CAT IV, 1000V

## Non-Contact Low Voltage Detector



- Use to detect voltage in low voltage applications ranging from 12-90 volts AC.
- Safe, non-contact voltage detection.
- Bright LED and audible alarm if voltage is present.
- ON/OFF switch for longer battery life.
- Convenient pen-size device easily fits into pockets or tool pouches.
- Accessories included: (2) 1.5 V AAA batteries.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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GT-15	09023	Non-Contact Low Voltage Detector
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### SPECIFICATIONS

<b>Voltage Detection:</b>	12-90VAC
<b>Frequency:</b>	50-500Hz
<b>Measurement Category:</b>	CAT III, 300V

# MULTIMETERS

## DMM Comparison Guide

FEATURE	DML-430A	DM-860	DM-830A	DM-820A	DM-810A	DM-510A	DM-210A	DM-200A
True RMS	AC+DC	AC+DC	AC+DC	•	•	•		
DCA (A max)	10	10	10	10	10	8	8	8
Maximum resolution (µA)	0.1	0.01	0.1	0.1	0.1	0.1	0.1	0.1
Best accuracy (%)	0.2	0.1	0.2	0.2	0.2	0.5	0.5	0.5
ACA (A max)	10	10	10	10	10	8	8	8
Maximum resolution (µA)	0.1	0.01	0.1	0.1	0.1	0.1	0.1	0.1
Best accuracy (%)	0.6	0.5	0.6	0.6	0.6	1.0	1.0	1.0
DCV (V max)	1000	1000	1000	1000	1000	1000	1000	1000
Maximum resolution (µV)	10	1	10	10	10	10	10	10
Best accuracy (%)	0.06	0.02	0.06	0.06	0.06	0.2	0.2	0.2
ACV (V max)	1000	1000	1000	1000	1000	1000	1000	1000
Maximum resolution (µV)	10	10	10	10	10	10	10	10
Best accuracy (%)	0.5	0.3	0.5	0.5	0.5	1.0	1.0	1.0
Resistance (MΩ)	60	50	60	60	60	60	60	60
Maximum resolution (mΩ)	100	10	100	100	100	100	100	100
Best accuracy (%)	0.1	0.07	0.1	0.1	0.1	0.5	0.5	0.5
Conductance	•		•	•				
Continuity and beeper	•	•	•	•	•	•	•	•
Diode Test	•	•	•	•	•	•	•	•
Capacitance	•	•	•	•	•	•	•	
Frequency	•	•	•	•	•	•	•	•
Frequency Response (Hz)	40-500	20-100k	40-500	40-500	40-500	50-400	50-400	50-400
Temperature measurement	Dual	Dual	Dual	Single		Single	Single	
Display Type	Dual Digital	Digital	Dual Digital	Dual Digital	Dual Digital	Digital	Digital	Digital
Display counts	10,000	50,000/500,000	10,000	10,000	10,000	6,000	6,000	6,000
Backlight	•	•	•	•	•	•	•	•
Display update X/sec	5	5	5	5	5	5	5	5
Analog bar graph segments	41	42	41	41	41	24	24	24
Analog update X/sec	60	60	60	60	60	40	40	40
Computer Interface	USB	RS-232	USB	USB	USB	USB, RS-232	USB, RS-232	USB, RS-232
Auto and manual ranging	•	•	•	•	•	•	•	•
Intelligent Auto Power Off	•	•	•	•	•			
Auto Power Off						•	•	•
Non-Contact Voltage Detection			•	•		•	•	•
Low Impedance AutoCheck™ mode	•		•			•		
Beep-Jack™ Input error warning	•	•	•	•	•	•	•	•
Peak (crest) Hold - Max, Min	•	•	•	•	•	•	•	•
Data Hold	•	•	•	•	•	•	•	•
Max/Min/Avg	max, min	max, min	•	•		max, min		
Relative offset mode (Δ)	•	•	•	•	•	•	•	•
Process loop measurement		•						
Data logging (points stored, single channel)	87,000							
Data logging (points stored, dual channel)	43,000							
Duty cycle	•	•	•	•	•			
Measurement Category Rating	IV, 1000	IV, 600V III, 1000V	IV, 1000	IV, 1000	IV, 1000	IV, 300 III, 600 II, 1000	IV, 300 III, 600 II, 1000	IV, 300 III, 600 II, 1000
UL	•	•	•	•	•	•	•	•
cUL or CSA	•	•	•	•	•	•	•	•
CE	•	•	•	•	•	•	•	•



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## DMM Comparison Guide

FEATURE	DM-350	DM-330	DM-310	DM-300	DM-60	DM-40	DM-20	PDMM-20	AM-6
True RMS	•	•		•					
DCA (A max)	10	10	10		10	200mA	200mA		500mA
Maximum resolution (µA)	0.1	1000	1000		0.1	10	1		
Best accuracy (%)	0.9	0.9	0.9		1.0	1.5	2.5		
ACA (A max)	10	10	10		10				
Maximum resolution (µA)	0.1	1000	1000		0.1				
Best accuracy (%)	1.2	1.2	1.2		1.0				
DCV (V max)	1000	1000	1000	1000	600	600	300	450	300
Maximum resolution (µV)	100	100	100	100	100	100	100	1000	
Best accuracy (%)	0.5	0.5	0.5	0.5	0.5	0.8	1.2	0.5	
ACV (V max)	1000	1000	1000	1000	600	600	300	450	300
Maximum resolution (µV)	100	100	100	100	100	0.1V	0.1V	1000	
Best accuracy (%)	1.0	1.0	1.0	1.0	1.0	1.2	1.5	1.5	
Resistance (MΩ)	60	60	60	60	20	20	2	6	1
Maximum resolution (mΩ)	100	100	100	100	100	100	100	1000	
Best accuracy (%)	0.7	0.7	0.7	0.7	0.8	0.8	1.5	1.0	
Conductivity									
Continuity and beeper	•	•	•	•	•	•	•	•	
Diode test	•	•	•	•	•	•	•		
Capacitance	•	•	•					•	
Frequency	•	•	•	•	•			•	
Frequency response (Hz)	50-500	50-500	50-500	50-500	40-400	40-400	45-400	50-60	
Temperature measurement						Single			
Display type	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Analog
Display counts	6000	6000	6000	6000	2000	2000	2000	6000	
Backlight	•					•			
Display update X/sec	5	5	5	5	2.5	2.5	2.5	5	
Analog bar graph									
Analog update X/sec									
Computer interface									
Auto and manual ranging	•	•	•	•					
Intelligent Auto power off	•	•	•	•				•	
Auto power off									
Non-contact voltage detection	•	•	•	•				•	
Low Impedance AutoCheck <sup>™</sup> mode								•	
Beep-Jack <sup>™</sup> Input error warning	•	•	•						
Peak (crest) Hold - Max, Min									
Data hold	•	•	•	•	•	•			
Min/Max/Avg	min, max only	min, max only	min, max only	min, max only	max only				
Relative offset mode (Δ)									
Process loop measurement									
Data logging (points stored, single channel)									
Data logging (points stored, dual channel)									
Duty cycle									
Measurement Category Rating	IV, 600V III, 1000V	IV, 600V III, 1000V	IV, 600V III, 1000V	IV, 600V III, 1000V	III, 300V II, 600V	III, 300V II, 600V	II, 300V	III, 300V II, 450V	II, 300V
UL	•	•	•	•	•	•	•	•	•
cUL or CSA	•	•	•	•	•	•	•	•	•
CE	•	•	•	•	•	•	•	•	



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## ESM™ Digital Logging Meter

**NEW**



FEATURING:



- Datalogging capability – stores 87,000 single-channel or 43,000 dual-channel measurements. Use optional USB interface DMSC-9U to transfer data to PC or for direct-to-PC logging.
- 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.
- Backlit LCD displays 2 readings with 10,000 count resolution
- BeepJack™ warns when test leads are incorrectly inserted in current measurement terminals
- Measures voltage, current, resistance, conductance, frequency and capacitance..
- Checks continuity and tests diodes
- Two temperature measurements using type K thermocouples
- Accessories included: (1) 9V battery, bead temperature probe (400°F / 204°C max.), test leads, protective boot, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DML-430A	08746	Digital Logging Meter (43,000 data points)
DML-430A-C*	35771*	Digital Logging Meter (43,000 data points)
TC-20	07535	Carrying Case (included)
TSG-3	12034	Sure-Grip Test Leads
TPB	07592	Bead Temperature Probe

\* Includes Certificate of Calibration

SPECIFICATIONS	
<b>Voltage Measurement</b>	60.00, 600.0 mV; 9.999, 99.99, 999.9 V
<b>Amperage Measurement</b>	600.0, 6000µA; 60.00, 600.0mA; 6.000, 10.00A
<b>Resistance</b>	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
<b>Conductance</b>	99.99nS
<b>Capacitance</b>	60.00, 600.0nF; 6.000, 60.00, 600.0µF; 6.000, 25.00 mF
<b>Frequency</b>	15Hz-50kHz sine wave; 5Hz-1MHz logic level square wave
<b>Temperature</b>	K type, -58 to 1832 °F (-50 to 1000 °C)
<b>Measurement Category</b>	CAT IV, 1000V

## Industrial 500,000-Count Digital Multimeter



- True RMS, 5-5/6-digit, 500,000-count display for greater accuracy.
- Audible input alert helps avoid damage to meter.
- Record max, min, and max-min and data hold.
- Crest capture (peak hold) max, min and max-min readings.
- Relative offset display mode makes monitoring relative measurement changes simple.
- Performs frequency, temperature and capacitance measurements, plus diode and continuity tests.
- Measures temperatures up to 1832°F.
- Autoranging – convenient operation – and to save you time.
- 42-segment analog bar graph display capability makes it easy to view quick changes.
- Bright, backlit display is easy to read under any light condition.
- RS-232 capable, may be connected to a PC for extended measurement capability with optional interface DMSC-9.
- Accessories included: (1) 9V battery, bead temperature probe (400°F/ 204°C max.), test leads, protective boot, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-860	07797	Industrial 500,000-Count Digital Multimeter
DM-860-C	07658	Industrial 500,000-Count Digital Multimeter
TC-20	07535	Carrying Case (included)
TSG-3	12034	Sure-Grip Test Leads
TPB	07592	Bead Temperature Probe

SPECIFICATIONS	
<b>Voltage Measurement</b>	500.00mV; 5.0000, 50.000, 500.00, 1000.0V
<b>Amperage Measurement</b>	500.00, 5000.0µA; 50.000, 500.00mA; 5.0000, 10.000A
<b>Resistance</b>	500.00Ω; 5.0000, 50.000, 500.00kΩ; 5.0000, 50.000MΩ
<b>Capacitance</b>	50.00; 500.0nF; 5.000, 50.00, 500.0, 9999µF
<b>Frequency</b>	5Hz-200kHz sine wave; 5Hz-2MHz logic level square wave
<b>Temperature</b>	K type, -58°F to 1832°F (-50°C to 1000°C)
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V

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## ESM<sup>™</sup> Series Digital Multimeters

**NEW**



**Testing & Measurement**

FEATURING:



DM-830A



DM-820A



DM-810A

### DM-810A features:

- True RMS for no-compromise accuracy
- Measures voltage, current, resistance, capacitance and frequency.
- Tests continuity and diodes.
- Backlit LCD with dual 10,000 count displays
- BeepJack<sup>™</sup> 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 interface DMSC-9U for direct-to-PC logging.
- Lifetime Limited Warranty

### DM-820A also features:

- 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-810A features plus:

- AC+DC True RMS gives accurate readings on complex waveforms
- Low impedance AutoCheck<sup>™</sup> mode – automatically selects AC or DC volts, resistance or continuity. Low impedance masks “ghost” voltage pickup.
- dBm function with 20 selectable reference impedance values
- 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
- Two temperature measurements using type K thermocouples
- Conductance measurement

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

CAT. NO.	UPC NO.	DESCRIPTION
DM-830A	08745	Digital Multimeter
DM-830A-C*	35770*	Digital Multimeter
DM-820A	08744	Digital Multimeter
DM-820A-C*	35760*	Digital Multimeter
DM-810A	08743	Digital Multimeter
DM-810A-C*	35759*	Digital Multimeter
TC-20	07535	(R) Carrying Case
TSG-3	12034	(R) Sure-Grip Test Leads
TPB	07592	(R) Bead Temperature Probe (included with DM-820A, DM-830A)

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Voltage Measurement</b>	60.00, 600.0 mV; 9.999, 99.99, 999.9 V
<b>Amperage Measurement</b>	600.0, 6000µA; 60.00, 600.0mA; 6.000, 10.00A
<b>Resistance</b>	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
<b>Conductance</b>	99.99nS
<b>Capacitance</b>	60.00, 600.0nF; 6.000, 60.00, 600.0µF; 6.000, 25.00 mF
<b>Frequency</b>	15Hz-50kHz sine wave; 5Hz-1MHz logic level square wave
<b>Temperature</b>	K type, -58 to 1832 °F (-50 to 1000 °C)
<b>Measurement Category</b>	CAT IV, 1000V

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# ESM™ Series Digital Multimeters

**NEW**



DM-510A



DM-210A



DM-200A

### 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.
- Lifetime Limited Warranty

### DM-210A also features:

- Measures capacitance
- Measures temperature using a type K thermocouple

### DM-510A has all DM-200A 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. Low impedance masks “ghost” voltage pickup.
- Measures capacitance
- Measures temperature using a type K thermocouple

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

CAT. NO.	UPC NO.	DESCRIPTION
DM-510A	08742	Professional Plant Digital Multimeter
DM-510A-C*	35758*	Professional Plant Digital Multimeter
DM-210A	08741	Digital Multimeter
DM-210A-C*	35757*	Digital Multimeter
DM-200A	08740	Digital Multimeter
DM-200A-C*	35756*	Digital Multimeter
TSG-3	12034 <b>B</b>	Sure-Grip Test Leads

\* Includes Certificate of Calibration

SPECIFICATIONS	
<b>Voltage Measurement</b>	60.00, 600.0 mV; 6.000, 60.00, 600.0, 1000V
<b>Amperage Measurement</b>	600.0, 6000µA; 60.00, 600.0mA; 6.000, 8.00A
<b>Resistance</b>	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
<b>Capacitance</b>	60.00, 600.0nF; 6.000, 60.00, 600.0, 3000µF
<b>Frequency</b>	10Hz-50kHz sine wave; 5Hz-999.9kHz logic level square wave
<b>Temperature</b>	K type, -58 to 1832 °F (-50 to 1000 °C)
<b>Measurement Category</b>	CAT IV 300V; CAT III 600V; CAT II 1000V



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## TRMS Digital Multimeter



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- True RMS for no-compromise accuracy when harmonics are present.
- Large LCD with backlight for easy viewing.
- AC/DC voltage, AC/DC amperage measurement.
- Non-contact voltage detection for identifying live lines without contacting conductors.
- Auto shut-off for longer battery life plus low battery indicator.
- Resistance measurement.
- Audible continuity and diode tests.
- Frequency measurement.
- Capacitance measurement.
- Data hold to capture measurement.
- 6000-count LCD for high resolution.
- Min/Max feature for added versatility.
- Audible input alert warns user if leads are in incorrect position.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-350	11871	DMM, 1000V 10A RMS BL
DM-350-C*	22897*	DMM, 1000V 10A RMS BL
TSG-3	12034	Sure-Grip Test Leads
TC-40	19216	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	600.0, 2000 $\mu$ A; 6.000, 10.00 A
<b>Voltage Measurement</b>	600.0 mV; 6.000, 60.00, 600.0, 1000V
<b>Resistance Measurement</b>	600.0 $\Omega$ ; 6.000, 60.00, 600.0 k $\Omega$ ; 6.000, 60.00 M $\Omega$
<b>Frequency Measurement</b>	40 Hz minimum, 100 Hz to 60 kHz maximum, depending on function and range
<b>Capacitance</b>	600.0 nF; 6.000, 60.00, 600.0, 2000 $\mu$ F
<b>Display</b>	6000-count LCD
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V

## TRMS Digital Multimeter



- True RMS for no-compromise accuracy when harmonics are present.
- Large LCD for easy viewing.
- AC/DC voltage, AC/DC amperage measurement.
- Non-contact voltage detection for identifying live lines without contacting conductors.
- Auto shut-off for longer battery life plus low battery indicator.
- Resistance measurement.
- Audible continuity and diode tests.
- Frequency measurement.
- Capacitance measurement.
- Data hold to capture measurement.
- 6000-count LCD for high resolution.
- Min/Max feature for added versatility.
- Audible input alert warns user if leads are in incorrect position.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-330	11870	DMM, 1000V 10A RMS
DM-330-C*	22895*	DMM, 1000V 10A RMS
TSG-3	12034	Sure-Grip Test Leads
TC-40	19216	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	6.000, 10.00 A
<b>Voltage Measurement</b>	600.0 mV; 6.000, 60.00, 600.0, 1000V
<b>Resistance Measurement</b>	600.0 $\Omega$ ; 6.000, 60.00, 600.0 k $\Omega$ ; 6.000, 60.00 M $\Omega$
<b>Frequency Measurement</b>	40 Hz minimum, 100 Hz to 60 kHz maximum, depending on function and range
<b>Capacitance</b>	600.0 nF; 6.000, 60.00, 600.0, 2000 $\mu$ F
<b>Display</b>	6000-count LCD
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V

## Averaging Digital Multimeter



- Use to measure voltage, resistance, current and continuity.
- Excellent for measuring AC voltage of electrical circuits.
- AC/DC voltage, AC/DC amperage measurement.
- Non-contact voltage detection for identifying live lines without contacting conductors.
- Auto shut-off for longer battery life plus low battery indicator.
- Resistance measurement.
- Audible continuity and diode tests.
- Frequency measurement.
- Capacitance measurement.
- Data hold to capture measurement.
- 6000-count LCD for high resolution.
- Min/Max feature for added versatility.
- Audible input alert warns user if leads are in incorrect position.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-310	11869	DMM, 1000V 10A AVG
DM-310-C*	22894*	DMM, 1000V 10A AVG
TSG-3	12034 <b>R</b>	Sure-Grip Test Leads
TC-40	19216 <b>R</b>	Carrying Case

\* Includes Certificate of Calibration

SPECIFICATIONS	
<b>Amperage Measurement</b>	6.000, 10.00 A
<b>Voltage Measurement</b>	600.0 mV; 6.000, 60.00, 600.0, 1000V
<b>Resistance Measurement</b>	600.0 Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
<b>Frequency Measurement</b>	40 Hz minimum, 100 Hz to 60 kHz maximum, depending on function and range
<b>Capacitance</b>	600.0 nF; 6.000, 60.00, 600.0, 2000 μF
<b>Display</b>	6000-count LCD
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V

## TRMS Digital Multimeter



- Use to measure voltage, resistance, and continuity.
- Excellent for measuring AC voltage of electrical circuits.
- AC/DC voltage measurement.
- Non-contact voltage detection for identifying live lines without contacting conductors.
- True RMS for the most accurate measurement when harmonics are present.
- Auto shut-off for longer battery life.
- Low battery indicator.
- Resistance measurement.
- Audible continuity and diode tests.
- Data hold to capture measurement.
- Frequency measurement.
- 6000-count LCD for high resolution.
- Min/Max feature for added versatility.
- Lifetime Limited Warranty.



CAT. NO.	UPC NO.	DESCRIPTION
DM-300	11868	DMM, 1000V RMS
DM-300-C*	22893*	DMM, 1000V RMS
TSG-3	12034 <b>R</b>	Sure-Grip Test Leads
TC-40	19216 <b>R</b>	Carrying Case

\* Includes Certificate of Calibration

SPECIFICATIONS	
<b>Voltage Measurement</b>	600.0 mV; 6.000, 60.00, 600.0, 1000V
<b>Resistance Measurement</b>	600.0 Ω; 6.000, 60.00, 600.0 kΩ; 6.000, 60.00 MΩ
<b>Frequency Measurement</b>	40 Hz minimum, 100 Hz to 60 kHz maximum, depending on function and range
<b>Display</b>	6000-count LCD
<b>Measurement Category</b>	CAT IV, 600V; CAT III, 1000V



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## Manual Ranging Multimeter



- A perfect choice for residential and light commercial use.
- Includes elastomer boot to protect meter from damage.
- AC/DC voltage, AC/DC amperage measurement.
- Resistance measurement.
- Audible continuity and diode tests.
- Frequency measurement in voltage mode.
- Data hold to capture measurement.
- Max feature for added versatility.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-60	12040	DMM, 600V AC/DC
TSG-3	12034	Sure-Grip Test Leads

### SPECIFICATIONS

<b>Amperage Measurement</b>	200.0 $\mu$ A; 2.000, 20.00, 200.0 mA; 10.00 A
<b>Voltage Measurement</b>	200.0 mV; 2.000, 20.00, 200.0, 600V
<b>Resistance Measurement</b>	200.0 $\Omega$ ; 2.000, 20.00, 200.0 k $\Omega$ ; 2.000, 20.00 M $\Omega$
<b>Frequency Measurement</b>	2 k to 10 MHz
<b>Measurement Category</b>	CAT III, 300V; CAT II, 600V

## Manual Ranging Multimeter



- Multi-purpose meter for most electrical needs.
- Includes elastomer boot to protect meter from damage.
- AC/DC voltage, DC amperage measurement.
- Temperature measurement using type K thermocouple.
- Audible continuity and diode tests.
- Tests 1.5V and 9V batteries.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-40	12039	DMM, 600V AC/DC w/ temp
TSG-3	12034	Sure-Grip Test Leads

### SPECIFICATIONS

<b>Amperage Measurement</b>	DC A: 20.00, 200.0 mA
<b>Voltage Measurement</b>	AC V: 200.0, 600 V; DC V: 200.0, 2000 mV; 20.00, 200.0, 600 V
<b>Resistance Measurement</b>	200.0, 2000 $\Omega$ ., 20.00, 200.0 k $\Omega$ .; 20.00 M $\Omega$
<b>Temperature Measurement</b>	-40 to 1832° F (-40 to 1000° C)
<b>Measurement Category</b>	CAT III, 300V; CAT II, 600V

## Manual Ranging Multimeter



- Use to measure voltage and check batteries.
- Great for measuring current of small electronic circuits.
- Includes elastomer boot to protect meter from damage.
- AC/DC voltage, DC amperage measurement.
- Resistance measurement.
- Audible continuity and diode tests.
- Tests 1.5V and 9V batteries.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
DM-20	12037	DMM, 300V AC/DC

### SPECIFICATIONS

<b>Amperage Measurement</b>	DC A: 2000 $\mu$ A; 20.00, 200.0 mA
<b>Voltage Measurement</b>	AC V: 200.0, 300 V; DC V: 200.0, 2000 mV; 20.00, 200.0, 300 V
<b>Resistance Measurement</b>	200.0, 2000 $\Omega$ ; 20.00, 200.0, 2000 k $\Omega$
<b>Measurement Category</b>	CAT II, 300V



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## PDMM-20 Pocket Multimeter



- Auto-select mode for hassle-free use.
- Low impedance eliminates stray or “ghost” voltage readings.
- AC/DC voltage measurement.
- Hassle-free, automatic measurement of voltage and resistance.
- Autoranging for quick, convenient measurements.
- Non-contact voltage detection for identifying live lines without contacting conductors.
- Intelligent Auto-Off for longer battery life.
- Low battery indicator.
- Resistance measurement.
- Audible continuity test.
- Frequency measurement in voltage mode.
- Capacitance measurement.
- 6000-count LCD for high resolution.
- Accessories included: (1) 3 V battery (CR2032), carrying case.
- Lifetime Limited Warranty.

### SPECIFICATIONS

<b>Voltage Measurement</b>	6.000, 60.00, 450.0 V
<b>Resistance Measurement</b>	600.0Ω; 6.000, 60.00, 600.0 kΩ; 6.000 MΩ
<b>Capacitance</b>	100.0, 1000 nF; 10.00, 100.0 μF
<b>Display</b>	6000-count LCD
<b>Measurement Category</b>	CAT II, 450 V; CAT III, 300 V

CAT. NO.	UPC NO.	DESCRIPTION
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PDMM-20	11689	Pocket Multimeter
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## Analog Multimeter



- Easy to read, multi-function display.
- AC/DC voltage, DC amperage measurement.
- Built-in test leads, no loose parts to lose.
- Resistance measurement.
- Tests 1.5 V and 9 V batteries.
- Accessories included: (1) 1.5 V AA battery.
- Lifetime Limited Warranty.

### SPECIFICATIONS

<b>Amperage Measurement</b>	DC A: 30, 500 mA
<b>Voltage Measurement</b>	AC V: 15, 50, 150, 300 V; DC V: 5, 15, 50, 150, 300 V
<b>Resistance Measurement</b>	10, 100K Ω, 1 MΩ
<b>Measurement Category</b>	CAT II, 300V per UL; 61010B-1

CAT. NO.	UPC NO.	DESCRIPTION
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AM-6	12725	Analog Multimeter
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## MULTIMETER ACCESSORIES

### Interface Kits



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.



DMSC-9U



DMSC-2U



DMSC-9

- Connects to a PC for data storage and retrieval from Greenlee digital multimeters.
- 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.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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DMSC-2U	35772 <b>N</b>	For DM-200 and 200A Series and DM-510A Digital Multimeters
DMSC-9U	35773 <b>N</b>	For DM-800A Series and DML-430A Digital Multimeters
DMSC-9	07755	For DM-860 Digital Multimeter

### SPECIFICATIONS

<b>Software Requirements</b>	Windows 7/Vista/XP/2000/NT4 or Windows ME/98/95
<b>Hardware Requirements</b>	CPU and memory – minimum Windows requirement Monitor – at least 640 x 480, 800 x 600 recommended. Hard disk – at least 20 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.



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## MULTIMETER ACCESSORIES

### 3000A Clamp-on Adapter



- Flexible clamp for easy "fishing" around a conductor.
- 3000A AC current measuring accessory.
- 24" long.
- Perfect for any multimeter that reads AC millivolts.
- Accessories included: (1) 9V battery.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CMAF-3000	07533	3000A Clamp-on Adapter
CMAF-3000-C*	07608*	3000A Clamp-on Adapter

\* Includes Certificate of Calibration

#### SPECIFICATIONS

<b>Amperage Measurement</b>	300, 3000A
<b>Voltage Output</b>	300A – 10mV output per 1 amp input 3000A – 1mV output per 1 amp input
<b>Clamp Length</b>	24" (610 mm)
<b>Measurement Category</b>	CAT III, 1000V

### AC/DC Clamp-on Current Adapter



- AC/DC current measuring accessory.
- Measure up to 600 amps.
- Perfect for any multimeter that reads AC and DC millivolts.
- Accessories included: (1) 9V battery.
- Lifetime Limited Warranty.

CAT. NO.	UPC. NO.	DESCRIPTION
CMA-60	07531	AC/DC Clamp-on Current Adapter

#### SPECIFICATIONS

<b>Amperage Measurement</b>	0-600A
<b>Voltage Output</b>	100 amp range – 10mV output per 1 amp input 600 amp range – 1mV output per 1 amp input
<b>Jaw Opening</b>	1.38" (35 mm)
<b>Measurement Category</b>	CAT III, 300V; CAT II, 600V

### Clamp-on Current Adapter



- AC current measuring accessory.
- Measures up to 400A AC.
- Perfect for any multimeter that reads AC millivolts.
- Lifetime Limited Warranty.

CAT. NO.	UPC. NO.	DESCRIPTION
CMA-40	07530	Clamp-on Current Adapter

#### SPECIFICATIONS

<b>Amperage Measurement</b>	0.1-400A
<b>Voltage Output</b>	1mV per 1 amp input
<b>Jaw Opening</b>	1.18" (30 mm)
<b>Measurement Category</b>	CAT III, 300V; CAT II, 600V

### Multimeter Hanging Strap

**NEW**



- Hanging accessory fits many digital multimeters
- Strong magnet for use on steel panels
- Nylon strap loops around pipes
- Includes magnet, strap, and mounting tab

CAT. NO.	UPC NO.	DESCRIPTION
DMHS-1	35774	Multimeter Hanging Strap



# CLAMP-ON METERS

## Clamp-on Meter Comparison Guide

FEATURE	CMGRT-100	CMP-200	CMI-200	CMI-100	CM-1550	CM-1500	CM-1350	CM-1300
True RMS		•	•	•	•		•	
DCA (A max)		2000	2500	1000	1000	1000		
Maximum resolution (A)		0.1	0.1	0.1	0.1	0.1		
Best accuracy (%)		1.5	1.5	2.0	1.2	1.2		
ACA (A max)	30	2000	2100	1000	1000	1000	1000	1000
Maximum resolution (A)	1mA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Best accuracy (%)	2.5	1.5	1.5	2.0	1.9	1.9	1.9	1.9
DCV (V max)		600	600	600	1000	1000	1000	1000
Maximum resolution (V)		0.1	0.1mV	0.1mV	0.1	0.1	0.1	0.1
Best accuracy (%)		1.5	1.5	0.75	0.7	0.7	0.7	0.7
ACV (V max)		600	600	600	750	750	750	750
Maximum resolution (V)		0.1	0.1mV	0.1mV	0.1	0.1	0.1	0.1
Best accuracy (%)		1.5	1.5	1.2	1.0	1.0	1.0	1.0
Resistance (Ω)	1200		40M	40M	400	400	400	400
Maximum resolution (Ω)	0.01		0.1	0.1	0.1	0.1	0.1	0.1
Best accuracy (%)	1.5		1.5	1.0	1.0	1.0	1.0	1.0
Continuity and beeper			•	•	•	•	•	•
Diode test			•	•				
Capacitance								
Frequency		•	•	•	•	•	•	•
Frequency response (Hz)	47-800	40-400	40-1k	40-450	50-500	50-500	50-500	50-500
Temperature (T1)								
Jaw opening	1.25" (32 mm)	2.17" (55 mm)	2.17" (55 mm)	1.81" (46 mm)	2.0" (51 mm)	2.0" (51 mm)	1.85" (47 mm)	1.85" (47 mm)
Display type	Digital	Dual Digital	Digital	Digital	Digital	Digital	Digital	Digital
Display update X/sec		2	2	2	2.5	2.5	2.5	2.5
Count	3000	4000	4000	4000	4000	4000	4000	4000
Analog bar graph			40 segments	40 segments	42 segments	42 segments	42 segments	42 segments
Analog update X/sec			20	20	13	13	13	13
Zoom analog bar graph								
Low battery indicator		•	•	•	•	•	•	•
Autoranging	•	•	•	•	•	•	•	•
Auto power off	•		•	•	•	•	•	•
Peak hold				•	•	•	•	•
Data hold	•	•	•	•	•	•	•	•
Min, max			•	•	•	•	•	•
Data logging								
Power factor		•						
True power (kW)		1200						
Apparent Power (kVA)		1200						
Measurement Category	III, 150V	III, 600V	III, 600V	III, 600V	IV, 600V III, 1000V	IV, 600V III, 1000V	IV, 600V III, 1000V	IV, 600V III, 1000V
UL	•	•	•	•	•	•	•	•
cUL or CSA		•	•	•	•	•	•	•
CE	•	•	•	•	•	•	•	•



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## Clamp-on Meter Comparison Guide

FEATURE	CM-950	CM-900	CM-850	CM-800	CM-600	CMT-90	CMT-80	CM-450	CM-410	CM-330
True RMS	•		•			•		•		
DCA (A max)	600	600								
Maximum resolution (A)	0.1	0.1								
Best accuracy (%)	1.2	1.2								
ACA (A max)	600	600	600	600	600	600	400	600	400	400
Maximum resolution (A)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.01	0.1	0.01
Best accuracy (%)	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.5	1.9	2.0
DCV (V max)	600	600	600	600	600	1000	600	600	600	
Maximum resolution (V)	0.1	0.1	0.1	0.1	1	0.1	0.1	0.1mV	0.1	
Best accuracy (%)	0.7	0.7	0.7	0.7	0.8	1.0	1.0	0.3	1.0	
ACV (V max)	600	600	600	600	600	1000	600	600	600	
Maximum resolution (V)	0.1	0.1	0.1	0.1	1	0.1	0.1	1mV	0.1	
Best accuracy (%)	1.0	1.0	1.0	1.0	1.2	1.5	1.5	1.5	1.5	
Resistance (Ω)	400	400	400	400	2000	2000	2000	40M	20M	
Maximum resolution (Ω)	0.1	0.1	0.1	0.1	1	0.1	1	0.1	0.1	
Best accuracy (%)	1.0	1.0	1.0	1.0	1.5	2.0	2.0	0.6	0.7	
Continuity and beeper	•	•	•	•	•	•	•	•	•	
Diode test								•		
Capacitance										
Frequency	•	•	•	•				•		
Frequency response (Hz)	50-500	50-500	50-400	50-400	40-500	50-500	50-60	50-60	50-500	50-60
Temperature (T1)										
Jaw opening	1.38" (35 mm)	1.38" (35 mm)	1.34" (34 mm)	1.34" (34 mm)	1.38" (35 mm)	1.34" (34 mm)	1.06" (27 mm)	1.02" (26 mm)	1.06" (27 mm)	1.18" (30 mm)
Display type	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital
Display update X/sec	2.5	2.5	2.5	2.5	4		1 to 4	3	1.5	25
Count	4000	4000	4000	4000	2000	10,000	6000	4000	2000	2000
Analog bar graph	42 segments	42 segments	42 segments	42 segments						
Analog update X/sec	13	13	13	13						
Zoom analog bar graph										
Low battery indicator	•	•	•	•	•	•	•	•	•	•
Autoranging	•	•	•	•				•	•	
Auto power off	•	•	•	•	•	•	•	•	•	
Peak hold	•	•	•	•						
Data hold	•	•	•	•	•	•	•	•	•	•
Min, max	•	•	•	•						max only
Data logging										
Power factor										
True power (kW)										
Apparent Power (kVA)										
Measurement Category	III, 600V	III, 600V	III, 600V	III, 600V	III, 600V	IV, 600V III, 1000V	III, 600V	III, 600V	III, 600V	III, 600V
UL	•	•	•	•	•	•	•	•	•	•
cUL or CSA	•	•	•	•	•	•	•	•	•	•
CE	•	•	•	•	•	•	•	•	•	•



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## Ground Resistance Tester



- Reads ground resistance down to 0.10Ω.
- Fully autoranging with data hold to capture readings.
- Convenient alarm and 99-point memory functions.
- Measures up to 30A RMS ground or leakage current.
- Measures currents down to 1mA.
- Accessories included: (1) 9V battery, molded carrying case, test resistance loop.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CMGRT-100	07653	Ground Resistance Tester
CMGRT-100-C*	07730*	Ground Resistance Tester

\* Includes Certificate of Calibration

### SPECIFICATIONS

Ground Resistance Measurement	0.10 to 1200Ω
Ground/Leakage Current Measurement	299mA; 2.999A, 29.99A
Display	3-3/4-digit LCD, 2999-count
Jaw Opening	1.25" (32 mm)
Measurement Category	CAT III, 150V

## 2000A Power Clamp



- True RMS for accurate measurement when harmonics are present.
- Extra high capacity 2000A measurement.
- Measures True Power, Apparent Power, Reactive Power, Power Factor, voltage, current and frequency.
- Calculates total power and power factor on 3-phase, 3-wire, and 3-phase, 4-wire, and 1-phase, 3-wire circuits using stored measurement.
- Stores up to 4 sets of measurements for calculation on multi-phase and multi-wire circuits.
- Large, easy-to-read, dual 4-digit, 4000-count LCD display for high resolution.
- Instantly recall the calculated Power Factor.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CMP-200	07568	2000A Power Clamp
CMP-200-C*	07635*	2000A Power Clamp
TSG-3	12034	Sure-Grip Test Leads
TC-55	07747	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

True Power	99.99, 999.9, 1200kW
Reactive Power	99.99, 999.9, 1200kVAR
Amperage Measurement	499.9, 2000A
Voltage Measurement	499.9, 600V
Frequency	10Hz-1000Hz
Jaw Opening	2.17" (55 mm)
Measurement Category	CAT III, 600V



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## 2500A Industrial Clamp Meter



- True RMS for accurate measurement when harmonics are present.
- High capacity 2500A DC, 2100A AC amperage measurement.
- 600V AC/DC voltage, frequency, and resistance measurements for maximum versatility.
- Peak hold, min-max, relative offset and analog bar graph to help monitor power changes.
- Produces 1mV per amp output to allow use as a remote transducer, linked to a multimeter or oscilloscope.
- Auto power off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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CMI-200	07567	2500A Industrial Clamp Meter
CMI-200-C*	07634*	2500A Industrial Clamp Meter
TSG-3	12034	Sure-Grip Test Leads
TC-55	07747	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	AC – 400.0, 2100A; DC – 400.0, 2500A
<b>Voltage Measurement</b>	AC – 4.000, 40.00, 400.0, 600V DC – 400.0mV; 4.000, 40.00, 400.0, 600V
<b>Display</b>	3-3/4-digit, 4000-count (9999 for frequency)
<b>Frequency</b>	99.99, 999.9Hz; 9.999, 99.99, 999.9kHz
<b>Resistance</b>	400.0Ω; 4.000, 40.00, 400.0kΩ; 4.000, 40.00MΩ
<b>Jaw Opening</b>	2.17" (55 mm)
<b>Voltage Output</b>	1mV output per 1 amp input
<b>Measurement Category</b>	CAT III, 600V

## Industrial Clamp Meter



- High capacity 1000A AC/DC amperage measurement.
- 600V AC/DC voltage, frequency, and resistance measurements for maximum versatility.
- Continuity and diode tests with audible and visual indicators.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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CMI-100	07564	Industrial Clamp Meter
CMI-100-C*	07631*	Industrial Clamp Meter
TSG-3	12034	Sure-Grip Test Leads
TC-50	07746	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	400.0, 1000A
<b>Voltage Measurement</b>	AC - 4.000, 40.00, 400.0, 600V DC - 400.0mV; 4.000, 40.00, 400.0, 600V
<b>Display</b>	3-3/4-digit, 4000-count (9999 for frequency)
<b>Frequency</b>	Voltage Mode - 99.99, 999.9Hz; 9.999, 99.99, 800.0kHz Current Mode - 99.99, 999.9Hz
<b>Resistance</b>	400.0Ω; 4.000, 40.00, 400.0kΩ; 4.000, 40.00MΩ
<b>Jaw Opening</b>	1.81" (46 mm)
<b>Measurement Category</b>	CAT III, 600V

## 1000A AC/DC True RMS Clamp Meter



- True RMS for the most accurate measurement when harmonics are present.
- AC/DC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Dual Hall sensor for the most accurate measurements.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Audible continuity test.
- Selectable Auto Off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-1550	07799	True RMS Clamp Meter
CM-1550-C*	10863*	True RMS Clamp Meter
TSG-3	12034 <b>R</b>	Sure-Grip Test Leads
TC-30	07536 <b>R</b>	Carrying Case

\* Includes Certificate of Calibration

SPECIFICATIONS	
<b>Amperage Measurement</b>	400.0, 1000A
<b>Voltage Measurement</b>	AC V: 400.0, 750V; DC V: 400.0, 1000V
<b>Resistance</b>	400.0Ω
<b>Frequency</b>	0.400kHz
<b>Display</b>	4000-count LCD display
<b>Jaw Opening</b>	2.0" (51 mm)
<b>Measurement Category</b>	CAT IV, 600V CAT III, 750V AC/1000V DC

## 1000A AC/DC Clamp Meter



- AC/DC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Dual Hall sensor for the most accurate measurements.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Audible continuity test.
- Selectable Auto Off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-1500	07798	Clamp Meter
CM-1500-C*	10862*	Clamp Meter
TSG-3	12034 <b>R</b>	Sure-Grip Test Leads
TC-30	07536 <b>R</b>	Carrying Case

\* Includes Certificate of Calibration

SPECIFICATIONS	
<b>Amperage Measurement</b>	400.0, 1000A
<b>Voltage Measurement</b>	AC V: 400.0, 750V; DC V: 400.0, 1000V
<b>Resistance</b>	400.0Ω
<b>Frequency</b>	0.400kHz
<b>Display</b>	4000-count LCD display
<b>Jaw Opening</b>	2.0" (51 mm)
<b>Measurement Category</b>	CAT IV, 600V per IEC 61010-1 CAT III, 750V AC/1000V DC



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## 1000A AC True RMS Clamp Meter



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- True RMS for the most accurate measurement when harmonics are present.
- AC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Audible continuity test.
- Selectable Auto Off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-1350	07733	True RMS Clamp Meter
CM-1350-C*	10861*	True RMS Clamp Meter
TSG-3	12034	Sure-Grip Test Leads
TC-30	07536	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	0 - 400.0, 1000A
<b>Voltage Measurement</b>	AC V: 400.0, 750V DC V: 400.0, 1000V
<b>Resistance</b>	0-400.0Ω
<b>Frequency</b>	0.400kHz
<b>Display</b>	4000-count LCD display
<b>Jaw Opening</b>	1.85" (47 mm)
<b>Measurement Category</b>	CAT IV, 600V CAT III, 750V AC/1000V DC

## 1000A AC Clamp Meter



- AC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Audible continuity test.
- Selectable Auto Off for longer battery life.
- Accessories included: (2) 1.5 V AA batteries, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-1300	07732	Clamp Meter
CM-1300-C*	10860*	Clamp Meter
TSG-3	12034	Sure-Grip Test Leads
TC-30	07536	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	0 - 400.0, 1000A
<b>Voltage Measurement</b>	AC V: 400.0, 750 V DC V: 400.0, 1000V
<b>Resistance</b>	0-400.0Ω
<b>Frequency</b>	0.400kHz
<b>Display</b>	4000-count LCD display
<b>Jaw Opening</b>	1.85" (47 mm)
<b>Measurement Category</b>	CAT IV, 600V CAT III, 750V AC/1000V DC

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## 600A AC/DC True RMS Clamp Meter



- True RMS for the most accurate measurement when harmonics are present
- AC/DC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Dual Hall sensor for DC amperage accuracy.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Auto zero for DCA measurement.
- Selectable Auto Off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-950	07700	AC/DC True RMS Clamp Meter
CM-950-C*	10859*	AC/DC True RMS Clamp Meter
TSG-3	12034 R	Sure-Grip Test Leads
TC-10	07534 R	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	400.0, 600A
<b>Voltage Measurement</b>	400.0, 600V
<b>Resistance</b>	400.0Ω
<b>Frequency</b>	0.400kHz
<b>Display</b>	4000-count LCD
<b>Jaw Opening</b>	1.38" (35 mm)
<b>Measurement Category</b>	CAT III, 600V

## 600A AC/DC Clamp Meter



- AC/DC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Dual Hall sensor for DC amperage accuracy.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Auto zero for DCA measurement.
- Selectable Auto Off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-900	07699	AC/DC Clamp Meter
CM-900-C*	10858*	AC/DC Clamp Meter
TSG-3	12034 R	Sure-Grip Test Leads
TC-10	07534 R	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	400.0, 600A
<b>Voltage Measurement</b>	400.0, 600V
<b>Resistance</b>	400.0Ω
<b>Frequency</b>	0.400kHz
<b>Display</b>	4000-count LCD display
<b>Jaw Opening</b>	1.38" (35 mm)
<b>Measurement Category</b>	CAT III, 600V



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## 600A AC True RMS Clamp Meter



- True RMS for the most accurate measurement when harmonics are present.
- AC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Selectable Auto Off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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CM-850	07666	True RMS Clamp Meter
CM-850-C*	10857*	True RMS Clamp Meter
TSG-3	12034 R	Sure-Grip Test Leads
TC-10	07534 R	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

Amperage Measurement	AC - 400.0, 600A
Voltage Measurement	400.0, 600V
Resistance	400.0Ω
Frequency	0.400kHz
Display	4000-count LCD
Jaw Opening	1.34" (34mm)
Measurement Category	CAT III, 600V

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## 600A AC Clamp Meter



- AC amperage, AC/DC voltage, frequency and resistance measuring capability.
- Easy-to-read backlit display for use in low light conditions.
- Peak and data hold to capture measurement.
- MIN/MAX feature for added versatility.
- Analog bar graph to view quick changes.
- Selectable Auto Off for longer battery life.
- Accessories included: (2) 1.5 V AA batteries, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
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CM-800	07664	Clamp Meter
CM-800-C*	10856*	Clamp Meter
TSG-3	12034 R	Sure-Grip Test Leads
TC-10	07534 R	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

Amperage Measurement	AC - 400.0, 600A
Voltage Measurement	400.0, 600V
Resistance	400.0Ω
Frequency	0.400kHz
Display	4000-count LCD display
Jaw Opening	1.34" (34mm)
Measurement Category	CAT III, 600V

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## AC Clamp-on Meter



### CM-600 features:

- Both AC amperage and AC/DC voltage measurement.
- Resistance measurement up to 2000Ω.
- Auto power off for longer battery life.
- Accessories included: (1) 9V battery, test leads, carrying case.
- Lifetime Limited Warranty.

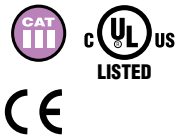
CAT. NO.	UPC NO.	DESCRIPTION
CM-600	07593	AC Clamp-on Meter
CM-600-C*	07625*	AC Clamp-on Meter
TSG-3	12034 <b>R</b>	Sure-Grip Test Leads
TC-10	07534 <b>R</b>	Carrying Case

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Amperage Measurement</b>	600A AC
<b>Voltage Measurement</b>	600V
<b>Display</b>	3-1/2-digit LCD, 2000-count
<b>Resistance</b>	2000Ω
<b>Jaw Opening</b>	1.38" (35 mm)
<b>Measurement Category</b>	CAT III, 600V

## True RMS Clamp Meter



- AC amperage, AC/DC voltage measurement.
- True RMS for the most accurate measurement where harmonics are present.
- Quick, easy operation.
- Auto power off for longer battery life.
- Resistance measurement.
- Audible continuity and diode tests.
- Frequency measurement.
- Data hold to capture measurement.
- 4000 count LCD.
- Accessories included: Test leads, 3V Standard button battery (IEC-CR 2032; ANSI-NEDA 54004LC)
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-450	12726	AC Clamp-on Meter, True RMS
TSG-3	12034 <b>R</b>	Sure-Grip Test Leads
TC-5	07588 <b>R</b>	Carrying Case

### SPECIFICATIONS

<b>Amperage Measurement</b>	40.00, 400.0, 600 A AC
<b>Jaw Opening</b>	1.02" (26 mm)
<b>Display</b>	LCD, 4000-count
<b>Voltage</b>	4.000, 40.00, 400.0, 600 V AC 400.0 mV, 4.000, 40.00, 400.0, 600V DC
<b>Resistance</b>	400.0Ω; 4.000, 40.00, 400.0kΩ; 4.000, 40.00MΩ
<b>Measurement Category</b>	CAT III, 600V per UL 61010-1



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## AC Clamp-on Meter



- Measures to 600 volts AC and DC, and 400 amps AC.
- Data hold to capture important readings.
- Audible continuity test.
- Auto power off for longer battery life.
- Accessories included: (2) 1.5V AAA batteries, test leads, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-410	73420	AC Clamp-on Meter, 400A
TSG-3	12034	Sure-Grip Test Leads
TC-5	07588	Carrying Case

### SPECIFICATIONS

<b>Amperage Measurement</b>	200.0, 400A AC
<b>Jaw Opening</b>	1.06" (27 mm)
<b>Display</b>	3-1/2-digit LCD, 2000-count
<b>Voltage</b>	200.0, 600V
<b>Resistance</b>	200.0Ω; 2.000, 20.00, 200.0kΩ; 2.000, 20.00MΩ
<b>Measurement Category</b>	CAT III, 600V

Testing & Measurement

## Clamp-on Meter



- AC current measuring capability up to 400 amps.
- Compact size, fits easily into tool pouch.
- Data hold and Max hold to capture important readings.
- 2000-Count LCD.
- Lifetime Limited Warranty.
- Accessories included: (1) 9V battery, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CM-330	11865	Clampmeter, 400A AC
TC-5	07588	Carrying Case

### SPECIFICATIONS

<b>Amperage Measurement</b>	20.00, 200.0, 400 A AC
<b>Display</b>	2000-count LCD
<b>Jaw Opening</b>	1.18" (30 mm)
<b>Measurement Category</b>	CAT III, 600 V per UL 61010B-1

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# CIRCUIT TRACING

## Circuit Tracer Application Guide

FINDER	CIRCUIT SEEKER	OPEN CIRCUIT	CLOSED CIRCUIT	BREAKER FINDER	BREAKER FINDER
	CS-8000	2008	2007	CS-2072	CS-2072K
Locate and identify breakers	•	• <sup>1</sup>	•	•	•
Locate and identify fuses	•	• <sup>1</sup>	•	•	•
Locate and identify blown fuses	•	•			
Trace concealed wiring in walls and floors	•	•	•		
Locate junction box relays and transformers	•	•	•		
Locate switch gear	•	•	•		
Find shorts to ground	•	•	•		
Trace wires in PVC (nonmetallic conduit)	•	•	•		
Find opens in a circuit	•	•			
Localize power and lighting panels	•	•	•		
Operate on energized circuits	•	• <sup>1</sup>	•	•	•
Operate on low voltage circuits	•	•	•		
Operate on high voltage circuits (600VAC)	•				
Operate on unenergized circuits	•	•	• <sup>3</sup>		
Trace shielded cable	•	• <sup>2</sup>			
Trace metal conduit	•		•		
Sort wires and trace coax cable	•	•			
Auto gain circuitry for improved accuracy	•				
AC voltage range	0-750V	0-480V	9-300V	110-120V	80-277V
DC voltage range	0-750V	0-480V	9-300V		
Distance – receiver from transmitter	300 ft.-4 mi. <sup>5</sup> (915 m-6.5 km)	3000-4000 ft. (915 m-1220 m)	3-4 miles (4.9 km-6.5 km)	300 ft. (91.4 m)	300 ft. (91.4 m)
Transmitter battery	(2) AA	9V	—	—	—
Receiver battery	(2) AA	9V	9V	9V	9V

1. Will operate on energized circuits in limited applications. Will not locate and identify a particular breaker or fuse, but will identify breakers or fuses that share a common bus.

2. Good earth ground required. Attach one prong of transmitter to shield of the cable and the other prong to a good earth ground (such as water pipe, metal building frame, etc.).

3. For circuits without power, hook-up a 9V battery in series with the circuit and transmitter to power the line.

4. Closed circuit applications only.

5. Depends on application – shorter distances for open circuit tracing, longer distances for closed circuit tracing applications.



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## CS-8000 Circuit Seeker<sup>™</sup> Circuit Tracer



**NEW**



### Features:

- 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.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CS-8000	12126	Circuit Seeker
12849	12849	Transmitter
12850	12850	Receiver
10057	10057	Alligator Clips (2)
10054	10054	AC Blade
12852	12852	AC Plug Adapter
12853	12853	Extension Leads (2)
12851	12851	Carrying Case

### SPECIFICATIONS

Capacity	0 to 750V AC/DC
Frequency	15.15 kHz
Receiver Range	up to 20' (6 m) Live Line Mode; up to 10' (3 m) Open Line with metallic connection to ground; 1-3' (.3-.9 m) with capacitive ground reference
Weight	4.3 lbs. (1950 g)



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## Power Finder<sup>®</sup> Open Circuit Tracer

### Features:

- Fast, simple, unenergized circuit tracing.
- Traces concealed wiring.
- Supports transmitter-to-receiver distances up to 4000 feet (1220 m).
- Accessories included: transmitter plug, (2) receptacle blades, extension leads, (2) 9V batteries, carrying case.
- Lifetime Limited Warranty.



CAT. NO.	UPC NO.	DESCRIPTION
2008	38786	Power Finder Open Circuit Tracer
38787	38787	Receiver
38788	38788	Transmitter
36928	36928	Transmitter Plug
36929	36929	Receptacle Blades (2), AC
38789	38789	Plastic Case
36930	36930	Test Lead

### SPECIFICATIONS

Capacity	0 to 480V AC/DC
Case Size	12" x 8-3/4" x 2" (305 mm x 222 mm x 51 mm)
Weight	2.4 lbs. (1089 g)
Distance	3000 ft. - 4000 ft. (915 m-1220 m)

## Power Finder® Closed Circuit Tracer



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385



- Fast, simple energized circuit tracing.
- Traces circuits in nonmetallic conduit.
- Finds shorts to ground.
- Supports transmitter-to-receiver distances up to 4 miles (6.5 km).
- Accessories included: transmitter plug, (2) receptacle blades, test leads, (1) 9V battery, carrying case.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
2007	36924	Power Finder Closed Circuit Tracer
38583	38583	<b>A</b> High Voltage Adapter
36925	36925	<b>R</b> Receiver*
36926	36926	<b>R</b> Transmitter*
36928	36928	<b>R</b> Transmitter Plug*
36929	36929	<b>R</b> Receptacle Blades (2), AC*
36930	36930	<b>R</b> Test Lead*
36927	36927	<b>R</b> Plastic Case*

\* 2007/36924 includes these items

### SPECIFICATIONS

<b>Capacity</b>	2007 - 9 to 300V AC/DC 38583 - 9 to 680 VAC, 9 to 1000 VDC
<b>Case Size</b>	12" x 8-3/4" x 2" (305 mm x 222 mm x 51 mm)
<b>Weight</b>	2.4 lbs. (1089 g)
<b>Distance</b>	3000 ft. - 4000 ft. (915m - 1220m)

## Breaker Finder



CS-2072



CS-2072K

### CS-2072K features:

- Convenient kit for residential circuit finding applications.
- Use with 50-60 Hz service from 80-277 Volts.
- Accessories for connecting transmitter to different outlet types.
- Compact receiver accurately locates AC breakers.
- Receiver belt clip for easy transport.
- Accessories included: (1) 120 VAC adapter plug, (1) light socket adapter, (2) blades, (2) clips, (1) 9V battery, (1) carrying case.
- Lifetime Limited Warranty.

### CS-2072 features:

- Transmitter and receiver snap together for convenient storage.
- Compact receiver accurately locates AC breakers.
- Receiver belt clip for easy transport.
- Accessories included: (1) 9V battery.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
CS-2072	12135	Breaker Finder
CS-2072K	12136	Kit, Breaker Finder

### SPECIFICATIONS

<b>Transmitter</b>	
<b>Voltage Range (CS-2072)</b>	110-120V AC, 60 Hz
<b>Voltage Range (CS-2072K)</b>	80-277V AC, 50-60 Hz
<b>Measurement Category:</b>	CAT II (transmitter only)
<b>Receiver</b>	
<b>Audible/Visual circuit indicator</b>	✓
<b>Power indicating LED</b>	✓
<b>On/Off switch</b>	✓
<b>Belt clip</b>	✓



## SENSORS & SCANNERS

### SF-420AC Stud Sensor with AC Detection



- Reliable way to detect the presence of AC voltage and to find wood or metal studs.
- Finds the edges of wood or metal studs up to 3/4" (19 mm) deep, through typical drywall construction.
- DeepScan<sup>®</sup> mode finds the edges of wood or metal studs up to 1-1/2" (38 mm) deep for thick construction such as plywood, paneling, or tile over drywall.
- Non-contact detection of AC voltage.
- Senses the changes in subsurface densities to pinpoint studs and joists, while detecting unshielded AC voltage.
- Dual scanning for more flexibility.
- Accessories included: (1) 9V battery.
- 1 Year Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
SF-420AC	12137	Stud Finder

#### SPECIFICATIONS

<b>Battery Type</b>	9 V alkaline (included)
<b>Position Accuracy</b>	<b>Stud Scan Mode:</b> Typically within 1/8" (3 mm) using the dual scan and mark procedure. <b>DeepScan Mode:</b> Typically within 3/16" (5 mm) using the dual scan and mark procedure.
<b>Detection Depth</b>	<b>Stud Scan Mode:</b> Typically up to 3/4" (19 mm) <b>DeepScan Mode:</b> Up to 1-1/2" (38 mm)
<b>AC Position Accuracy</b>	Typically 90 V to 250 V at 50 Hz to 60 Hz within 6" (150 mm) of a hot unshielded wire
<b>AC Sensing Depth</b>	In typical drywall with Romex <sup>®</sup> wiring, wires can be detected up to 3" (76 mm) deep.

### SF-530 Multiscanner



- Reliable way to detect the presence of AC voltage, find wood or metal studs, metal pipes and rebar.
- Finds both wood and metal studs.
- AC scanning to trace hot wires.
- Metal scanning for finding pipes.
- Backlit display for easy viewing.
- Accessories included: (1) 9V battery.
- 1 Year Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
SF-530	12138	Multiscanner

#### SPECIFICATIONS

<b>Battery Type</b>	9 V alkaline (included)
<b>Position Accuracy</b>	<b>Stud Scan Mode:</b> Typically within 1/8" (3 mm) using the dual scan and mark procedure. <b>DeepScan Mode:</b> Typically within 3/16" (5 mm) using the dual scan and mark procedure. <b>Metal Scan Mode:</b> Typically within 1/2" (13 mm)
<b>Detection Depth</b>	<b>Stud Scan Mode:</b> Typically up to 3/4" (19 mm) <b>DeepScan Mode:</b> Up to 1-1/2" (38 mm) <b>Metal Scan Mode:</b> Up to 1-1/2" (38 mm) for copper; up to 3" (76 mm) for rebar.
<b>AC Position Accuracy</b>	Typically 90 V to 250 V at 50 Hz to 60 Hz within 6" (150 mm) of a hot unshielded wire
<b>AC Sensing Depth</b>	Typically 2" (50 mm)

## SF-780 Metal Locator



- Save time by eliminating rework, needless holes and broken bits and sawblades.
- Finds both ferrous and non-ferrous metal and indicates depth up to 6" (152 mm) deep.
- Easy to read LCD identifies target location and depth.
- Scans through concrete and most metallic materials.
- Indicates depth to nearest 1/2" (13 mm).
- Automatically indicates whether target is steel rebar or copper pipe (or any magnetic vs. non-magnetic material).
- Easy to use - simple two button operation.
- Accessories included: (1) 9V battery, carrying case.
- 1 Year Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
SF-780	12139	Locator, Metal

### SPECIFICATIONS

<b>Battery Type</b>	9 V alkaline (included)
<b>Position Accuracy</b>	Center of 1/2" (#4) rebar or 1/2" (13 mm) copper pipe at a minimum grid spacing of 6" (152 mm), typically within 1/2" (13 mm).
<b>Detection Depth</b>	Up to 6" ± 1" (152 mm ± 25 mm)

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# LOCATORS

## Locators Application Guide

	BLL-200	501	PE2003	508S	521A
Trace concealed wiring in walls and floors		•		•	
Locate junction box relays and transformers	•				
Locate switch gear	•				
Find shorts to ground			• <sup>2</sup>		• <sup>1</sup>
Trace wires in PVC (nonmetallic conduit)	•	•		•	
Find opens in a circuit			• <sup>2</sup>		•
Localize power and lighting panels	•	•		•	
Operate on energized circuits	•	•		•	
Operate on low voltage circuits	•	•	•	•	
Operate on high voltage circuits (600VAC)	•				
Operate on unenergized circuits	•	•	•	•	•
Trace shielded cable	•	• <sup>3</sup>		• <sup>3</sup>	• <sup>3</sup>
Trace buried metal conduit					
Trace coax cable	•	• <sup>5</sup>		• <sup>5</sup>	• <sup>4</sup>
Auto gain circuitry for improved accuracy	•				
AC voltage range	0-600V	0-240V	0-240V	0-240V	0-120V
DC voltage range	0-300V	0-500V	0-400V	0-500V	0-250V
Distance—receiver from transmitter	5,000 ft.	• <sup>7</sup>	5000 ft.	1000 ft.	• <sup>6</sup>
Transmitter battery	(4) AA	(8) AA	12V rechargeable	(1) 9V	(8) D
Receiver battery	(4) AA	(1) 9V	(1) 9V	(1) 9V	(1) 9V

1. 10,000 ohms and less—both ends isolated from grounds.

2. Does not locate the path—has to be predetermined and only in direct burial applications. 5,000,000 and less.

3. Transmitter connected to metallic shield.

4. Will trace coax providing the b0nd is in place at the remote end—will disrupt service.

5. No sorting (high RF bleeds) can trace coax if transmitter connected to braid.

6. Low frequency locators need a "path to earth" (dirt), 5000 ft. on an open conductor and 2500 ft. on a metallic pipe at 3 ft. deep.

7. Direct Connection 4,000 ft at 7 ft deep  
Inductive Coupler 1,000 ft at 3 ft deep  
Inductive Antenna 700 ft at 3 ft deep

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## Buried Line Locator



- LED and LCD signal strength indicators make it quick and easy to find exact line location.
- Lightweight and ergonomically balanced.
- Automatic signal boost makes it easy to trace lines, even those with very weak signals.
- Receiver may be used in active or passive mode.
- Receiver locates multiple passive frequencies with a single setting.
- Receiver automatically locks out passive range when it detects a transmitter signal, reducing the chance of tracing other lines carrying weaker signals.
- Microprocessor-based circuitry delivers increased accuracy and features auto-gain control in all environments.
- Traces 20' (6 m) underground and provides depth readings up to 15' (4.57 m).
- Transmitter can be connected to live lines up to 600V.
- Lifetime limited warranty.
- Molded carrying case included.

### SPECIFICATIONS

Transmitter		Receiver	
<b>Operating Voltage</b>	0-600VAC, 0-300 VDC	<b>Depth Range</b>	Measures: 0-15 ft. Traces: 0-20 ft.
<b>Current</b>	13mA (open line) 150mA (live or shorted line)	<b>Depth Resolution</b>	±(10% reading + 0.2 ft.) 0.1 ft. increments
<b>Frequency</b>	33.3kHz	<b>Passive Trace Frequency</b>	12Hz-24kHz
<b>Operating Temperature</b>	0°F to 120°F (-17°C to 50°C)	<b>Operating Temperature</b>	0°F to 120°F (-17°C to 50°C)
<b>Size</b>	7.5" x 4" x 2.1" (190.5 mm x 101.6 mm x 53 mm)	<b>Size</b>	4.1" x 8.5" x 38" (104.1 mm x 215.9 mm x 965.2 mm)
<b>Power</b>	6 VDC (4 AA batteries)	<b>Power</b>	6 VDC (4 AA batteries)
<b>Weight</b>	15 oz. (425 g) (with batteries and clamp)	<b>Weight</b>	1 lb. 12 oz. (794 g)

CAT. NO.	UPC NO.	DESCRIPTION
BLL-200	07796	Buried Line Locator

## Tracker II



Headset (accessory)  
CAT. No. HS-1  
UPC No. 08695

- Traces the path and determines the depth of wires and metallic pipes on active or dead systems without having to deactivate the system.
- Lightweight receiver provides audible and visual indications of signal strength.
- Transmitter output and receiver sensitivity are fully adjustable for maximum accuracy.
- Transmitter offers three methods of connection: direct, inductive coupler and inductive antenna.
- Includes transmitter assembly, receiver assembly, inductive coupler (clamp), built-in inductive antenna, two 8' (2.4 m) test leads with heavy-duty alligator clips and durable polyethylene case.
- High frequency transmitter provides range up to 4,000' (1,219 m) and depths up to 7' (2 m).
- Receiver is 32" long (813 mm).
- Battery operated (eight AA and one 9V battery is included).
- Molded carrying case included.
- 1-year limited warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	Transmitter – (8) AA batteries; Receiver – (1) 9V battery
<b>Battery Life</b>	Transmitter – 30 hours nominal; Receiver – 10 hours nominal
<b>Transmitter Frequency</b>	447.5kHz
<b>Transmitter Power</b>	40Vp-p (140mW) maximum
<b>Voltage Protection</b>	240VAC/500VDC
<b>Automatic Shut Off</b>	90 Min. Transmitter and Receiver
<b>Construction</b>	Transmitter/Receiver – powder-coated aluminum Case – vacuum formed polyethylene
<b>Dimensions</b>	Transmitter – 4.25" x 3" x 3.25"; Receiver – 32" x 2.75" x 4" Case – 33.5" x 8.25" x 3.75"
<b>Weight</b>	6.7 lbs. (complete kit)

CAT. NO.	UPC NO.	DESCRIPTION
501	08662	Tracker II
501T	60353	Transmitter
501R	60352	Receiver
IC1	60354	Inductive Clamp
CS16	60355	Transmitter Cord Set
500CA	60351	Case with Antenna



## Pulser Fault Locator



- Identifies the exact location of even the smallest breaks in insulation by “pulsing” a high-voltage signal that radiates into the earth at the location of the faults. With the A-frame mounted receiver, a visual analog meter points the way to the source of the voltage.
- Multiple faults on a single wire can be identified, indicating the need to replace instead of repair.
- Extra-long test leads feature heavy-duty alligator clips for use on multiple cable types.
- Includes a rechargeable transmitter, receiver, A-frame, ground stake, 120V charger and a 12V DC (cigarette lighter) adapter.
- Battery-operated: (1) 12V and (1) 9V battery included.
- Molded carrying case included.
- 1-year limited warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	Transmitter: (1) 12V rechargeable battery; Receiver: (1) 9V battery
<b>Battery Life</b>	Transmitter: 23 hours per charge; Receiver: 200 hours
<b>Transmitter Power</b>	2400VDC peak
<b>Voltage Protection</b>	240VAC/400VDC
<b>Construction</b>	Transmitter – aluminum housing in polyethylene case; Receiver – powder-coated aluminum
<b>Dimensions</b>	Transmitter – 17" x 8.5" x 6.5" (421 mm x 215 mm x 160 mm) in case Receiver – 33.5 x 21.75" x 3.25" (840 mm x 550 x 8 mm) on A-Frame
<b>Weight</b>	12.5 lbs. complete

CAT. NO.	UPC NO.	DESCRIPTION
PE2003	08666	Pulser
2000H	60357	Transmitter
2000R	60358	Receiver
AF2	60482	A-Frame
CH1	60360	AC Charger
CH2	60361	DC Charger

## Wire Finder/Mini Locator



- Traces energized or de-energized wires in walls and drop ceilings.
- Provides reliable results on buried cables to depths of 3' (1 m) and lengths up to 1000' (308 m).
- Determines the approximate depth of the wire before digging.
- Compact design.
- Easy-to-understand operations.
- Fully adjustable transmitter and receiver for accurate locating.
- Quick change test leads for use in any industry, even international power outlets.
- Voltage protection to allow use on live AC circuits.
- Automatic shut-off to prevent accidental battery discharge.
- Housed in a durable, molded carrying case with a quick reference operation guide on the inside of the lid.
- Battery-operated: (2) 9V batteries included.
- 1-year limited warranty.

### SPECIFICATIONS

<b>Power Requirements</b>	(1) 9V each (transmitter and receiver, included)
<b>Battery Life</b>	Transmitter 35 hours nominal; Receiver 20 hours nominal
<b>Transmitter Frequency</b>	447.5kHz
<b>Transmitter Power</b>	9Vp-p (11mW)
<b>Voltage Protection</b>	240VAC/500VDC
<b>Construction</b>	Transmitter/Receiver – high-impact ABS plastic, Case – vacuum-formed polyethylene
<b>Dimensions</b>	Transmitter – 4" x 2.3" x 1" Receiver – 6" x 2.35" x 1" Case – 9.5" x 8" x 3"
<b>Weight</b>	2.6 lbs.

CAT. NO.	UPC NO.	DESCRIPTION
508S	08678	Wire Finder/Mini Locator
508ST	60363	Transmitter
508SR	60364	Receiver
CS14	60366	Alligator Clip Cord set
CS15	60367	AC Outlet Cord set

## Wire and Valve Locator



- Adjustable transmit power allows you to select the best signal for maximum performance.
- Transmitter's high power output offers extended range and use on higher resistance wire paths that other locators can't touch.
- Receiver provides both audible and visual indications of signal strength.
- Lightweight receiver wand makes it easy for you to move along quickly to locate even the longest wire path.
- Rugged headphones block ambient noise and improve "feel" for the signal.
- Includes transmitter, receiver, headset, ground stake, and complete instructions.
- Battery-operated: (8) "D" Cells and (1) 9V.
- 1-year limited warranty.

CAT. NO.	UPC NO.	DESCRIPTION
521A	86788	Wire and Valve Locator
521T	60368 <b>R</b>	Transmitter
521R	60352 <b>R</b>	Receiver
HS1	08695 <b>R</b>	Headset
GS1	60362 <b>R</b>	Ground Stake

### SPECIFICATIONS

<b>Power Requirements</b>	Transmitter: (8) "D" Cell; Receiver: (1) 9V battery
<b>Battery Life</b>	Transmitter: 50 hours nominal Receiver: 100 hours nominal
<b>Transmitter Frequency</b>	1748Hz
<b>Transmitter Power</b>	750Vp-p 285Vrms
<b>Voltage Protection</b>	120VAC/250VDC
<b>Construction</b>	Powder-coated aluminum housing in polyethylene case
<b>Case Dimensions</b>	33.5" x 8.25" x 3.75"
<b>Weight</b>	12 lbs. complete

## Station Master™ Pro



24B

- Troubleshoot irrigation systems.
- Activate and cycle solenoids.
- Test solenoids for continuity.
- Send tone to identify wires.
- Measure clock voltage.
- Low battery indication.
- Easy-to-understand LEDs.
- Test leads with "Bed-of-Nails" and piercing Pin Clips.
- 1-year limited warranty.

CAT. NO.	UPC NO.	DESCRIPTION
24B	86786	Station Master Pro
24BK	86787	Station Master Pro Kit
700C	08683 <b>R</b>	Carrying Case

### SPECIFICATIONS

<b>Minimum Voltage for Clock LED</b>	15 VAC (LED intensity increases as voltage increases)
<b>Minimum Battery while Testing</b>	10.5 VDC
<b>Maximum Input Voltage between Test Leads</b>	28 VAC
<b>Solenoid Circuit Recharge Time</b>	2.5 seconds
<b>Maximum Distance Range to Activate one Solenoid</b>	12 AWG Loop 3000-13000 feet 14 AWG Loop 2000-8500 feet 18 AWG Loop 500-3000 feet
<b>Power Source</b>	9V alkaline batteries
<b>Battery Life</b>	3 hours continuous
<b>Operating/Storage Temp.</b>	32°F - 122°F (0° - 50°C)



24BK

## BASIC ELECTRICAL KITS

### Basic Electrical Kit

#### TK-30GFI



#### DM-20

- Use to measure voltage and check 1.5 V and 9 V batteries.
- AC/DC voltage, DC amperage measurement.
- Built-in test leads, no loose parts to lose.
- Resistance measurement.
- Audible continuity and diode tests.
- Lifetime Limited Warranty.

#### GT-11

- Use to detect voltage in outlets, lighting fixtures, circuit breakers, wires and cables or to find a break in a wire.
- Measurement category IV. Application range 50-1000 volts AC.

#### GT-15

- Use to detect voltage in low voltage applications ranging from 12-90 volts AC.

#### GT-11 AND GT-15

- Safe, 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.
- Lifetime Limited Warranty

#### GT-10 AND GT-10GFI

- Use to troubleshoot 120V AC grounded outlets.
- Light sequence indicates correct / incorrect wiring.
- GT-10GFI also tests GFCI receptacles.
- Lifetime Limited Warranty.

#### TK-30



#### DM-20

#### GT-11

#### GT-10

#### TK-30IR



#### DM-20

#### GT-15

#### GT-10GFI

CAT. NO.	UPC NO.	DESCRIPTION
TK-30	12127	Electrical Kit, Basic
TK-30IR	89799	Electrical Kit, Low Voltage
TK-30GFI	10268	Electrical Kit, GFCI

#### SPECIFICATIONS

DM-20	See Page 370
GT-10	See Below
GT-10GFI	See Below
GT-15	See Page 362



## CIRCUIT VERIFYING

### Polarity Cubes



#### GT-10GFI

#### GT-10

- Use to troubleshoot 120 V AC grounded outlets.
- Light sequence indicates correct/incorrect wiring.
- Lifetime Limited Warranty

#### GT-10GFI

- Use to troubleshoot 120 V AC grounded outlets and test GFCI receptacles.
- Light sequence indicates correct/incorrect wiring.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
GT-10	12124	Cube, Polarity
GT-10GFI	12125	Tester, Circuit GFI

#### GT-10

## Inspector GFCI and Circuit Tester



- Allows instant testing of GFCI receptacles or GFCI circuit breaker protected circuits.
- Indicates whether a GFCI will trip at 3, 5, 7 or 10mA.
- Checks 120VAC grounded outlets for correct/incorrect wiring.
- LED indicators signal correct wiring, open ground, open neutral, open hot, hot/ground reversed and hot/neutral reversed.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
5708i	34524	Inspector GFCI and Circuit Tester
5708i-C*	07641*	Inspector GFCI and Circuit Tester

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Capacity</b>	120VAC, 3-wire systems	
<b>Test Duration</b>	Current (mA)	Time Duration (Sec.)
	3	15
	5	5
	6	4
	7	3
	10	2
<b>Size</b>	5-3/8" x 2-5/8" x 1-3/4" (137 mm x 67 mm x 44 mm)	
<b>Cord Length</b>	16" (406 mm)	
<b>Weight</b>	0.5 lb. (227 g)	
<b>Accuracy</b>	Current: 10% at nominal voltage; time: 1.5%	
<b>Measurement Category</b>	CAT II, 150V	

## GFCI and Circuit Tester



- Allows instant testing of GFCI receptacles or GFCI circuit breaker protected circuits.
- Checks 120VAC grounded outlets for correct/incorrect wiring.
- LED indicators signal correct wiring, open ground, open neutral, open hot, hot/ground reversed and hot/neutral reversed.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
5708	34523	GFCI and Circuit Tester
5708-C*	07640*	GFCI and Circuit Tester

\* Includes Certificate of Calibration

### SPECIFICATIONS

<b>Capacity</b>	120VAC, 3-wire systems	
<b>Time</b>	4-second interval between mA test impulses; 200 ms pulse duration	
<b>Size</b>	5-3/8" x 2-5/8" x 1-3/4" (137 mm x 67 mm x 44 mm)	
<b>Cord length</b>	16" (406 mm)	
<b>Weight</b>	0.5 lb. (227g)	
<b>Accuracy</b>	Current: 10% at nominal voltage; Time: approx. 12%	
<b>Measurement Category</b>	CAT II, 150V	



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## INSULATION TESTING

### Insulation Testing Comparison Chart

	5990	5882	5880	5778
Test voltage	250V	•	•	•
	500V	•	•	•
	1000V	•	•	•
	2500V	•		
	5000V	•		
Range	250V	50k-2000MΩ		0-25MΩ
	500V	500k-500GΩ	100k-2000MΩ	0-50MΩ
	1000V	700k-500GΩ	200k-2000MΩ	0-100MΩ
	2500V	5M-500GΩ		
	5000V	20M-500GΩ		
Continuity		0-20Ω	0-20Ω	
Resistance		0-400kΩ	0-400kΩ	
Display type	Analog	Digital	Digital	Analog
Backlit		•	•	
Count		4000	4000	
Analog bar graph		•	•	
Measurement Category	III, 600V	II, 300V	II, 300V	
UL		•	•	
CE	•	•	•	

### 5kV Megohmmeter



- Four test voltages: 500V, 1000V, 2500V, and 5000V.
- Resistance measurement range up to 500GΩ.
- Extra-large analog display for easy viewing.
- Accessories included: (4) 1.5V D batteries, integrated carrying case, test leads, probes, snap-on test lead pouch.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
5990	07665	5kV Megohmmeter
87121	87121	Probes
86999	86999	Leads

#### SPECIFICATIONS

##### Insulation Tests

Test Voltage	500, 1000, 2500, 5000V
Range	500k to 500GΩ
Voltage Test Range	600V AC/DC
Measurement Category	CAT III, 600V



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## Digital/Analog Megohmmeter



5883



### 5880 features:

- Auto-ranging AC/DC default voltmeter with test inhibitor and warnings for enhanced user safety.
- Extra-large digital display with backlight and analog bar graph.
- Weather resistant against dust and water to IP44.
- Multiple test voltage ranges.
- Measure up to 2000MΩ resistance.
- Accessories included: (6) 1.5V AA batteries, test leads, case.
- Lifetime Limited Warranty

### 5882 adds:

- Tests three voltage ranges: 250, 500, and 1000V.
- Timer function for dielectric absorption and polarization index measurements.

### 5883 (optional accessory):

- Remote probe, pushbutton and flashlight for added convenience.

### SPECIFICATIONS

#### Insulation Tests

**Test Voltage** 5882: 250, 500, 1000V  
5880: 500, 1000V

**Range** 250V: 50k – 2000MΩ  
500V: 100k – 2000MΩ  
1000V: 200k – 2000MΩ

**Automatic Discharge** 1.5 sec/μF, 300 KΩ impedance

**Continuity Range** 0-20Ω

**Resistance Range** 0-400kΩ

**Voltage Test Range** 0-600V AC/DC

**Display** 4000-count, backlit 34-segment analog bar graph

**Measurement Category** CAT II, 300V

CAT. NO.	UPC NO.	DESCRIPTION
5882	07573	Digital/Analog Megohmmeter
5882-C*	07639*	Digital/Analog Megohmmeter
5880	07572	Digital/Analog Megohmmeter
5880-C*	07638*	Digital/Analog Megohmmeter
5883	07591 <b>A</b>	Remote Probe
87073	87073 <b>R</b>	Test Lead Kit

\* Includes Certificate of Calibration

## Manual-Crank Megohmmeter



- Compact, field-ready – does not require batteries or AC power.
- Hand-crank meter designed for non-destructive insulation tests of electrical installations, machines, equipment, transformers and electric motors.
- Features (3) test voltages and (3) measuring ranges.
- Leather case and leads included.
- Lifetime Limited Warranty

### CAT. NO. UPC NO. DESCRIPTION

5778	34555	Manual-Crank Megohmmeter
5778-C*	07636*	Manual-Crank Megohmmeter
5778TL	34727	6' (1.83 m) Ext. Leads with Alligator Clamps

\* Includes Certificate of Calibration

### SPECIFICATIONS

**Capacity** Megohm Ranges: 25, 50, 100  
DC Voltage Ranges: 250, 500, 1000V

## MOTOR ROTATION & PHASE SEQUENCE

### Non-contact Phase Sequence Indicator



- Non-contact detection of phase sequence.
- Self-adjusting to correct phase if line frequency varies.
- Auto shutoff for maximum battery life.
- Proximity sensor means safe, non-contact sequence.
- Accessories included: (1) 9V battery, case.
- Lifetime Limited Warranty

### CAT. NO. UPC NO. DESCRIPTION

5712	07575	Non-contact Phase Sequence Indicator
------	-------	--------------------------------------

### SPECIFICATIONS

**Frequency Required** 50/60Hz  
**Phase Lock** Holds phase for 12 seconds from last indications.

**N** = NEW PRODUCT **R** = REPLACEMENT PART **A** = ACCESSORY



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## Motor Rotation and Phase Sequence Indicator Kit



5702



5123

- Assists in correct motor installation by identifying the phases of a three-phase circuit and the rotation of an unenergized motor to prevent damage to motor or electrical system.
- Identifies L1, L2, L3 phases and motor leads and indicates rotation of the motor before installation.
- Easy clockwise and counterclockwise indication.
- Accessories included: (1) 9V battery, carrying case.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

5779	07576	Motor Rotation and Phase Sequence Indicator Kit
TC-20	07535	Carrying Case

### SPECIFICATIONS

#### Phase Sequence Indicator (CAT. No. 5702)

Overvoltage Protection CAT III, 600V

#### Motor Rotation Indicator (CAT. No. 5123)

Two LEDs indicate motor rotation



Do not use Motor Rotation Indicator on live circuits.

## Motor Rotation Indicator



- Tests unenergized 3-phase motor to determine sequence for desired motor rotation.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

5123	34514	Motor Rotation Indicator
------	-------	--------------------------

### SPECIFICATIONS

Indicators Two LEDs



Do not use Motor Rotation Indicator on live circuits.

## Phase Sequence Indicator



- Identifies L1, L2, L3 phases and indicates phase rotation before installation.
- Clockwise and counterclockwise indication via neon lamps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

5702	07574	Phase Sequence Indicator
------	-------	--------------------------

### SPECIFICATIONS

Live Phase Indicators Three neon lamps

Motor Rotation Indicators Two neon lamps

Measurement Category CAT III, 600V



# TEMPERATURE

## TG-600 Infrared Thermometer



- Safe, non-contact temperature measurement.
- Laser indicates approximate center of the target area.
- Displays temperatures in either Fahrenheit or Celsius.
- Auto power off for longer battery life.
- Easy-to-read backlit display for use in low light conditions.
- Accessories included: (1) 9V battery and carrying case.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TG-600	09031	Infrared Thermometer

### SPECIFICATIONS

<b>Optical Resolution</b>	12:1 at focus point
<b>Target Temperature Range:</b>	-4°F to 932°F (-20°C to 500°C)
<b>Accuracy:</b>	±2% or 4°F (±2°C)
<b>Repeatability:</b>	Within ±1% of reading or ±2°F (1°C)
<b>Response Time:</b>	500 ms, 95% response
<b>Emissivity:</b>	Preset at 0.98

AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE.	CAUTION	COMPLIES WITH FDA 21 CFR SUBCHAPTER J
←	LASER RADIATION - DO NOT STARE INTO BEAM OUTPUT < 1 mW WAVELENGTH 630-670 nm CLASS II LASER PRODUCT	



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## Immersion Temperature Probe



- Suitable for liquids and gels.
- Measurement range: -40°F to 1472°F (-40°C to 800°C).
- Probe length: 4.72" ±0.2" (120 mm ±5 mm).
- Accuracy: ±2.2°C (4°F) or 0.75%, whichever is greater.
- Type K thermocouple.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

TPI-1	06569	Immersion Temperature Probe
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## 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.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

TPB	07592	Bead Temperature Probe
-----	-------	------------------------

## Surface Temperature Probe



- For flat or slightly convex surfaces, perfect for measurement of hot rollers and plates.
- Measurement range: -40°F to 932°F (-40°C to 500°C).
- Probe length: 4.72" ±0.2" (120 mm ±5 mm).
- Accuracy: ±2.2°C (4°F) or 0.75%, whichever is greater.
- Type K thermocouple.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
----------	---------	-------------

TPSFC	06570	Surface Temperature Probe
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## SPECIALTY TESTERS

### Sound Level Meter



- Noise measurement adapted to dB(A) weighting.
- Compact and light, easy to take to any site.
- Accessories included: (1) 9V battery.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
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93-20	34451	Sound Level Meter
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#### SPECIFICATIONS

Capacity	Low – 35 to 80dB; High – 75 to 120dB
Audible Range	"A" Scale
Frequency	20-20,000Hz
Weight	8 oz. (227g)
Size	6-3/8" x 2-1/2" x 1-1/2" (162 mm x 64 mm x 38 mm)

## 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.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
93-172	06060	Digital Light Meter
93-172-C*	07084*	Digital Light Meter
06200	06200 (R)	Carrying Case
06061	06061 (R)	Sensor
06083	06083 (R)	Sensor Case

\* includes Certificate of Calibration

### SPECIFICATIONS

Ranges	
Foot Candles	0.01-5,000Fc (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

## Gas Lamp Tester



- Test most fluorescent lamps, low pressure sodium vapor, high pressure sodium discharge lamps, neon tubes, mercury vapor and metal halide lamps.
- Checks starters, resistors, ignitors, capacitors and photo cells.
- Indicates AC/DC voltage and continuity.
- Includes detachable antenna, batteries, leads, probes, clamps and holster.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
5715	34529	Gas Lamp Tester
5713	34528 (R)	Holster
35450	35450 (R)	Battery Door
5710	34525 (R)	Antenna
5786	34574 (R)	Small Alligator Clamps (2)
5783	34556 (R)	Push-on Probes (2)

### SPECIFICATIONS

Capacity	Voltage – up to 500 VAC & VDC; Continuity – to 300 kΩ
Size	6" x 2-3/4" x 1-3/4" (152 x 70 x 45 mm); Antenna – 27" (686 mm)
Weight	2.4 lbs. (1.1 kg)
Batteries	2-9V, included

## Lamp Tester



- Tests HID and fluorescent lamps.
- Live conductor sensing.
- Compact, rugged housing with carrying case (included).
- Accessories included: (1) 9V Battery
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
LT-100	07541	Lamp Tester
TC-10	07534	Deluxe Carrying Case

### SPECIFICATIONS

Live Conductor Indication	60-250VAC, 40-60Hz
Continuity Verification	0-5MΩ (test current: <7μA)
Lamp Tester Voltage	3kV/160kHz (test current:<200μA)
Measurement Category	CAT II, 250V



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## ACCESSORIES

### Fused Test Leads

**NEW**

CAT IV

CAT III

UL US

CE



- High breaking capacity fuse in each lead for safety.
- 39" (1 m) long flexible silicon insulated wire.
- Right angle meter plugs.
- Set of 2 leads, one black, one red.
- Measurement Category III, 1000V and CAT IV, 600V per CAN/CSA C22.2 No. 61010-1 and 61010-031, and UL-61010-1 and 61010-031.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TFL-1	12028	Fused Test Leads
TFL-1R	12848	(2) Replacement Fuses

### Deluxe Electrical Test Lead Kit

CE



- Kit contains: (2) modular test probes with sharp stainless steel tip, (2) 48" (1.2 m) flexible test leads with straight and right angle meter plugs, two each of Grabber clips with alligator tips (TGA-2), pincer tips (TGP-2), hook tips (TGH-2), large alligator clips, and a nylon carrying case.
- Measurement Category: CAT III, 1000V per IEC 61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TDTLK	07524	Deluxe Electrical Test Kit

### Industrial Test Lead Kit

CAT III

CE



- Kit contains: (2) modular test probes with sharp stainless steel tip, (2) 48" flexible test leads with straight and right angle meter plugs, Grabber clips with alligator tips (TGA-2), and a nylon carrying case.
- Measurement Category: CAT III, 1000V per IEC 61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TITLK	07523	Industrial Test Lead Kit

### Test Lead Kit

CAT IV

UL US LISTED

CAT III

CE



- Kit contains: (1) 48" (1.2 m) long insulated test leads (TTL-3), (2) modular test probes.
- Measurement Category: CAT III, 1000V; CAT IV, 600V per UL 61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TLK-1	12035	Test Lead Kit

## Medium Alligator Clips



- Insulated clip with sheathed receptacle.
- For use with test leads and test lead kits, CAT. Nos. TTL-3, TLK-1, TITLK, and TDTLK.
- Set of 2 clips, one black, one red.
- Jaw opens to 0.71" (18 mm).
- Measurement Category III, 600V per UL-61010
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TMA-3	12031	Medium Alligator Clips

## Extra-Large Alligator Clips



- Insulated clip with sheathed receptacle.
- For use with test leads and test lead kits, CAT. Nos. TTL-3, TLK-1, TITLK, and TDTLK.
- Set of 2 clips, one black, one red.
- Jaw opens to 1" (25.4 mm).
- Measurement Category IV, 600V; Category III, 1000V per UL-61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TLA-3	12032	Extra-Large Alligator Clips

## Grabber with Alligator Tip



- Sheathed receptacle for protection.
- For use with test lead and test kits, CAT. Nos. TTL-3, TLK-1, TITLK, and TDTLK.
- Set of 2 clips, one black, one red.
- Overall length 6.2" (158 mm).
- Attaches to terminals up to 0.375" (9.5 mm) in diameter.
- Measurement Category III, 1000V per IEC 61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TGA-2	07516	Grabber with Alligator Tip

## Grabber with Hook Tip



- Sheathed receptacle for protection.
- For use with test lead and test kits, CAT. Nos. TTL-3, TLK-1, TITLK, and TDTLK.
- Set of 2 clips, one black, one red.
- Overall length 5.98" (152 mm).
- Hooks onto terminals up to 0.08" (2.2 mm) in diameter.
- Measurement Category III, 1000V per IEC 61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TGH-2	07519	Grabber with Hook Tip



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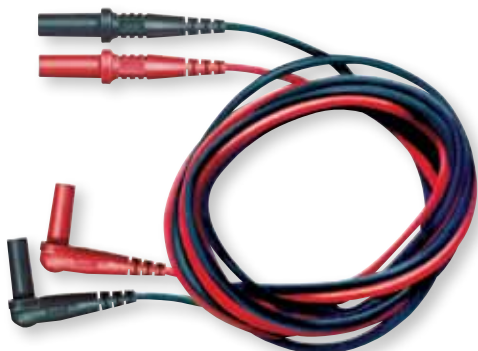
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- 48" (1.2 m) long flexible silicon insulated wire.
- Straight and right-angle meter plugs.
- Set of 2 leads, one black, one red.
- For use with T-series Greenlee Test Instrument accessories.
- Measurement Category III, 1000V; CAT IV, 600V per UL-61010.
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TTL-2	07520	Insulated Test Leads

### 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, one red.
- Measurement Category IV, 1000V per UL-61010
- Maximum current 10 amps.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TSG-3	12034	Sure-Grip Test Leads

### Thermocouple Adapter



- Allows temperature probes with miniconnectors to be used with DMMs or clamp meters that are designed with a temperature measurement function via a banana jack input.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TA	07525	Thermocouple Adapter

## 93-30 Line Splitter (NEMA 5-15)



- For use with all models of clamp-on meters.
- Splits lines for independent testing with clamp-on meter.
- Lifetime Limited Warranty.

CAT. NO.	UPC NO.	DESCRIPTION
93-30	34452	93-30 Line Splitter (NEMA 5-15)

### SPECIFICATIONS

Size	4-5/8" x 1-3/4" (118 mm x 45 mm)
Weight	0.1 lb. (45g)

## Deluxe Carrying Case



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

CAT. NO.	UPC NO.	DESCRIPTION
TC-5	07588	Deluxe Carrying Case

### SPECIFICATIONS

Size	7-3/4" x 3" x 1-1/2" (196.9 mm x 76.2 mm x 38.1 mm)
------	---

## Deluxe Carrying Case



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

CAT. NO.	UPC NO.	DESCRIPTION
TC-10	07534	Deluxe Carrying Case

### SPECIFICATIONS

Size	9-3/8" x 3-1/8" x 1-3/4" (240 mm x 80 mm x 45 mm)
------	---



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## Deluxe Carrying Case



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

CAT. NO.	UPC NO.	DESCRIPTION
TC-15	07595	Deluxe Carrying Case

### SPECIFICATIONS

Size	11-1/4" x 3" x 2" (285.8 mm x 76.2 mm x 50.8 mm)
------	--

## Deluxe Carrying Case



- Durable nylon carrying case.
- Inside pocket for test leads.
- With carry strap.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TC-30	07536	Deluxe Carrying Case

### SPECIFICATIONS

Size	11-1/4" x 4-1/2" x 2 1/8" (285 mm x 115 mm x 55 mm)
------	---

## Deluxe Carrying Case



- Durable nylon carrying case.
- Inside pocket for test leads.
- Elastic straps inside to hold multiple instruments.
- With carry strap.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TC-20	07535	Deluxe Carrying Case

### SPECIFICATIONS

Size	7-3/4" x 6-1/4" x 2" (196.9 mm x 158.8 x 50.8 mm)
------	---

## Deluxe Carrying Case



- Durable nylon carrying case.
- Inside pocket for test leads.
- With carry strap.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TC-40	19216	Deluxe Carrying Case

### SPECIFICATIONS

Size	7-1/4" x 5-1/2" x 2 3/4" (185 mm x 132 mm x 70 mm)
------	--



## Deluxe Carrying Case



- Durable nylon carrying case.
- Inside pocket for test leads.
- Elastic straps inside to hold multiple instruments.
- With carry strap.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TC-28	07715	Deluxe Carrying Case

### SPECIFICATIONS

Size	9" x 6-1/4" x 2" (228.6 mm x 158.8 mm x 50.8 mm)
------	--

## Deluxe Carrying Case



- Durable nylon carrying case.
- Velcro open/close flap for easy access.
- Inside pocket for test leads.
- With carry strap and double-stitched belt loop.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TC-50	07746	Deluxe Carrying Case

### SPECIFICATIONS

Size	8-1/4" x 6" x 2" (210 mm x 152 mm x 51 mm)
------	--

## Deluxe Carrying Case



- Durable nylon carrying case.
- Velcro open/close flap for easy access.
- Inside pocket for test leads.
- With carry strap and double-stitched belt loop.
- Lifetime Limited Warranty

CAT. NO.	UPC NO.	DESCRIPTION
TC-55	07747	Deluxe Carrying Case

### SPECIFICATIONS

Size	11-1/2" x 6" x 2" (292.1 mm x 152.4 mm x 51 mm)
------	---



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## Fuse Selection Guide

AM-6												
DM-20		•										
DM-40		•										
DM-60		•						•				
DM-200						•					•	
DM-200A						•			•			
DM-210						•					•	
DM-210A						•			•			
DM-310												•
DM-330												•
DM-350												•
DM-500	•											•
DM-510	•											•
DM-510A						•			•			
DM-800					•					•		
DM-810					•					•		
DM-810A					•					•		
DM-820					•					•		
DM-820A					•					•		
DM-830A					•					•		
DM-860					•					•		
DML-430					•					•		
DML-430A					•					•		
DML-54					•					•		
5878							•					
5880							•					
5882							•					

FUSE RATINGS												
AMPERAGE	160 mA	315 mA	500 mA	0.44 A	0.63 A	0.63 A	10 A	10 A	11 A	12.5 A	15 A	
VOLTAGE	250 V	250 V	250 V	1000 V	500 V	660 V	250 V	600 V	1000 V	500 V	600 V	
INTERRUPTING RATING (AMPS)	1,500	1,500	1,500	10,000	150,000	30,000	200	100,000	10,000	20,000	100,000	
<b>SUITABLE FUSES</b>	Bussman GDA-160mA Littelfuse 216.160	Bussman GDA-315mA Littelfuse 216.315	Bussman GDA-500mA Littelfuse 216.500	Bussman DMM-B-44/100 Littelfuse FLU.44 Ferraz FSM44/100	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	

### TEST LEAD KIT COMPATIBILITY

Catalog numbers TTL-3, TSG-3, TFL-1, TLK-1, TITLK, and TDTLK are compatible with all Greenlee instruments with IEC-compliant shrouded banana jacks. Note: Need to make sure Replacement leads match Category ratings.

	<b>11372</b>
CMT-80	✓
CSJ-100	✓

### SOFTWARE COMPATIBILITY

	DMSC-2U	DMSC-9U	DMSC-2	DMSC-9
DM-200	•		•	
DM-200A	•			
DM-210	•		•	
DM-210A	•			
DM-510A	•			
DM-800				•
DM-810				•
DM-810A		•		
DM-820				•
DM-820A		•		
DM-830A		•		
DM-860				•
DML-54				•
DML-430				•
DML-430A		•		



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## Instrument Case Compatibility

Case Catalog No. Case UPC No.	TC-5 07588	TC-10 07534	TC-20 07535	TC-28 07715	TC-30 07536	TC-40 19216	TC-50 07746	TC-55 07747
CM-330	•							
CM-410	•							
CM-450	•							
CM-600 Series		•						
CM-800 Series		•						
CM-900 Series		•						
CM-1300 Series					•			
CM-1500 Series					•			
CMA-40	•							
CMA-60		•						
CMAF Series			•	•				
CMI-100					•		•	
CMI-200					•			•
CMP-200					•			•
CMT-80	•							
CMT-90		•						
CSJ-100	•							
DM-20						•		
DM-40						•		
DM-60			•					
DM-200 Series			•			•		
DM-300 Series			•			•		
DM-500 Series			•			•		
DM-800 Series			•	•				
DML Series			•	•				
GT-65	•							
GT-95	•							
GT-220			•			•		
GT-540			•			•		
LT-100		•						
2010		•						
5702			•					
5708		•				•		
5708i		•				•		
5723			•					
5779			•					



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# NOTES



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